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ABSTRACT

Intended for teachers of deaf/blind and severely handicapped students, the manual focuses on teaching skills to meet the requirements for sheltered and transcommunity employment. The first section presents two approaches to teaching independent living skills (including grooming and self care). Section 2 describes orientation and mobility skills instruction in a prevocational program so that the student can meet requirements for sheltered workshop employment. Section 3 explains the movement, communication, and vocational requirements of sheltered employment from a classroom teacher's perspective. The fourth section presents diagrams and illustrations of the jigs that can be made to help in vocational preparation. Materials described are used in paper folding, collating, stapling, sorting, button sewing, cleaning, and packing. Among appended information are suggestions for individualized educational programs. (CL)

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PREVOCATIONAL SKILL DEVELOPMENT

for

Deaf/Blind & Severely Handicapped

distributed by

OFFICE OF RIVERSIDE COUNTY SUPERINTENDENT OF SCHOOLS

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DIVISION OF SPECIAL SCHOOLS AND SERVICES

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October 1981

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PREFACE

This Prevocational Skill Development Manual for the Deaf/Blind and Severely Handicapped is based on the philosophy that all children be given the training necessary to move from dependent reliance on others to become independent participants in society to the best of their capabilities.

The 1970's brought about the greatest changes in education for the Severely handicapped with the passage of the Rehabilitation Act of 1973 (Public Law 93-112). In effect, the new law superseded all previous rehabilitation legislation and provided services to individuals with severe handicapping disabilities. Section 504 of the Rehabilitation Act of 1973 says that the handicapped shall not be denied access to public-use facilities due to physical barriers. With the removal of many of these barriers it became possible for the handicapped to work in areas that never before were accessible. In 1975, Public Law 94-142 established the categories for those individuals who are to be identified and served as handicapped students. It is because of this and other legislation that the Deaf/Blind and Severely Handicapped are now receiving special education services.

This manual is intended to be a workable program for teachers of Deaf/Blind and Severely Handicapped students. In doing the research for this manual it was found that there was little, if any, established programs for the Deaf/Blind retarded student so materials had to be adapted from various programs designed for the deaf or blind population.

The four main sections of this manual are designed to meet the requirements for sheltered employment as well as trans-community employment.

Section One contains two different methods for teaching independent living skills which are required for basic survival.

Section Two is a method of teaching orientation and mobility skills in a pre-vocational program so that a student may function in a sheltered employment setting or competitive employment.

Section Three explains the requirements for sheltered employment that the classroom teacher must be aware of if their students are to be employable.

Section Four includes diagrams and drawings of the various jigs that can be made to help the student complete the tasks that may not otherwise be performed. It is through the use of these various jigs the student will develop their skills to an acceptable level for the sheltered employment or trans-community employment.

The remainder of this manual has suggestions that will help the classroom teacher in the establishment of a prevocational program.

Robert L. Olson 1981

Acknowledgements

I would like to thank the authors who helped make this book a reality. It was their expertise that made it possible to have a workable program of Pre-vocational Education for the Deaf/Blind and Severely Handicapped.

A special thanks to Lorri Cadena and Donna Abramson who inspired me to find a program that would work for their students. They helped me to understand the special needs of people who are severely multiple handicapped and how to deal with the handicapping conditions.

With gratitude I want to thank Melinda Peterson and Cathy Sampson who provided their typing and graphic skills for this manual.

Thank you all.

INDEPENDENT LIVING SKILLS

by

California School for the Blind

INDEPENDENT LIVING SKILLS

TOILETING

Objectives:

1. Toilets independently

Materials:

1. potty chair or attachment for larger toilet
2. training pants
3. toilet schedule

Procedure:

Communication and Language

1. Word written in large print "potty" or "toilet".
2. Verbal - "potty, toilet, bathroom".
3. Sign - "t" for toilet or "rr" for restroom.

Scheduling

Note child's time of bowel movement or urinating. If too irregular, try to establish times of toileting by taking child to bathroom at regular intervals.

Behavior Modification

Child is rewarded each time he uses the toilet - a hug or a material reward. Diminish gradually - size of reward or instead of a hug a phrase such as, "good girl/boy" could be substituted.

Self-Cleaning

When child soils clothing point out accident, have him/her remove own clothing, and wash them.

Bare-Bottom

This is a method where a child wears only a shirt and a pair of socks, therefore, making the child aware visually and/or thermo-tactually when urinating or defecating.

Success of this method depends upon adult awareness. At regular intervals for brief periods of time, take child to toilet or watch him for signs that he is about to toilet.

Cannot toilet train a child who is wearing a diaper or rubber pants. Use training pants. Do not dress child in complicated outer clothing, such as pants with a bib, snaps, zipper, etc.

Child should know location of bathroom and have some form of communication to alert adult that he/she has a need to go do the bathroom.

Toilets made for small children would be better facilities to use. If this is an impossibility, then a training chair would be advisable. If plans are to use a regular size toilet, then an attachment for children should be fitted to toilet.

Child must be shown routine of toileting - flush toilet after using, use of toilet paper, wash and dry hands (this will entail turning faucet on and off).

EATING

Objectives:

1. Eats a variety of foods.
2. Uses all eating utensils correctly.

Materials:

1. spoon
2. fork
3. knife
4. cup or glass
5. straw
6. soft drink
7. pureed food
8. banana
9. bread
10. soup
11. solid food

Procedure:

If child has difficulty going from baby or pureed food to solids, it would be necessary to establish a system for teaching child to bite and chew before swallowing.

Biting and Chewing

Using a soft solid first - i.e., banana. Help child place it in his mouth and gently press jaws to help him/her bite. Then help child place his/her hands on your face and you chew. Urge child to imitate you.

Gradually add more solid foods for biting and chewing exercises.

Drinking from a Cup/Glass

Provide opportunities for child to:

1. Drink from a cup or glass
2. Pour liquid into cup/glass
3. Suck liquids through a straw
4. Drink from a soft drink bottle or can
5. Drink from a water fountain

Using a Spoon

Start with soup so that child only has to be concerned with getting food to mouth. He will retain liquid on spoon as long as spoon is

held correctly. With a solid, he/she would have to worry with getting food on spoon. When he/she has mastered proper holding of spoon and getting it to mouth without spillage, go on to solids.

In the beginning, child may use both hands - one holds the spoon, the other (1 finger preferably) acts as a pusher. Later you may want to show the child that bread can substitute for the finger as a pusher. As skill grows, he/she will no longer need a pusher.

Using a Fork

Show pupil that the tines of a fork are for piercing a bit of food as well as scooping. Show pupil how to hold fork on edge to cut food.

Using a Knife

Provide opportunities for pupil to:

1. spread with knife
2. cut with knife
3. cut with knife and fork

NASAL HYGIENE

Objectives:

Follows nasal hygiene standards.

Materials:

1. handkerchief
2. kleenex
3. poster

Procedure:

Due to the difficulty of teaching a child to expel air through the nostrils, covering the child's mouth with a handkerchief and tickle the child. Hence forcing mucus from the nostrils.

Communication and Language

Teach child to blow nose when needed. Use of handkerchief or tissue at all times when necessary.

Cover mouth when coughing or sneezing.

ORAL HYGIENE

Objectives:

1. Brushes teeth using correct stroke motion.
2. Brushes teeth independently.

Materials:

1. posters showing care of teeth.
2. toothpaste
3. toothbrush
4. dixie cups

Procedure:

1. Take toothbrush and paste to sink.
2. Remove cap from toothpaste tube.
3. Put paste on brush.
4. Turn on water.
5. Wet brush and paste.
6. Brush back teeth with horizontal motion.
7. Brush front teeth with vertical motion after closing teeth.
8. Spit paste out (difficult to get idea across that paste is not to be swallowed).
9. Rinse mouth out without swallowing water (difficult to get this idea across).
10. Spit water into sink.
11. Rinse toothbrush.
12. Turn off water.
13. Wipe mouth and hands dry.
14. Replace cap on tube.
15. Dispose of rinse cup.

UNDRESSING & DRESSING

Objectives:

1. undresses and dresses self completely.
2. dresses according to occasion.
3. changes clothing when necessary.

Materials:

1. clothing related to specific skills.
2. commercially made forms.

Procedure for Undressing:

Help child by starting to undress, i.e., pulling at toe of sock, unlacing shoe and placing his hand on she heel, pulling shirt half-way over his head and he finishes. Allow child time to try by himself/herself with encouragement from you.

Motivate child to want to undress self - bathing, swimming, unzips, unbuttons, unhooks, unbuckles. Skill can be taught using either the child's own clothing or the commercially made forms.

Procedure for Dressing:

Child finishes what you begin - dress partially on; pull panties up; socks put over toes, pull over heel and up.

Motivate child to want to dress self-going to a favorite place, dressing for a favorite activity.

Child begins more complex skills; zipping, buttoning, snapping, hooking, buckling, lacing, tying (making first knot, making a bow, tightening bow). Skills can be taught using either the child's own or any of the commercially made forms.

CARE OF CLOTHING

Objectives:

1. hangs clothing on a hanger.
2. puts soiled clothing away.
3. folds clean clothing.
4. puts clean clothing away.
5. notes needed repairs in clothing.
6. mends tears and sews on buttons.
7. washes clothes by hand and machine.
8. polishes shoes.
9. replaces broken laces.
10. irons clothing.

Materials:

1. hangers
2. hampers
3. washer and dryer
4. iron
5. needle, thread, sewing machine
6. newspaper
7. rag
8. polish
9. repair checklist
10. to do checklist

Procedure:

If clothing becomes too dirty during day, have child remove them and place them in hamper.

When clothing is removed if there are tears, buttons missing or broken laces, point this out to child so that he/she will begin to note these things himself/herself. As child matures and is able to handle a needle and thread, then he/she should be encouraged to mend own clothing.

Polishing shoes, place newspaper on floor, sit on floor with pupil, wipe dirt from shoes with a rag, use a polish that has brush attached to bottle, show pupil brush stroke for polishing.

Clothing is washed and ironed - have child fold clean clothes and put them away in correct places.

Allow child opportunities to help with washing and ironing clothing when he/she is maturationally ready.

GROOMING

Objectives:

1. bathes self.
2. uses deodorants.
3. shampoos hair.
4. combs, brushes, sets hair.
5. shaves, when necessary.
6. uses makeup moderately.
7. cleans fingernails.
8. cares for self during menstrual period.
9. cleans glasses, comb, brush, earmolds regularly.

Materials:

1. wash towel
2. bath towel
3. soap
4. shampoo
5. brush
6. comb
7. curlers
8. manicure and pedicure scissors
9. lotion
10. nail clippers
11. deodorants
12. perfumes
13. cleaners
14. makeup
15. dishwashing liquid (to clean molds, brushes, and combs)
16. electric razor
17. sanitary napkins

Procedure:

Wash hands after using bathroom - learning to turn faucet on and off. Learning to bathe self-play with child and her washcloth as she is being bathed. Help her to wash herself thoroughly with towel. Teach proper adjustment of water temperature. Dry hands, face and entire body with minimal help. Put towels in proper places when finished.

Help child to wash hair. She her how to use fingers to massage scalp. Have her measure proper amount of shampoo. Teach correct use of comb and brush. Also teach child to clean them regularly. Help child to set hair using curlers, if she desires them.

Clean fingernails, file and cut fingernails and toenails; use deodorants and makeup when applicable) moderately; wash earmolds, clean glasses; shave at regular intervals.

Personal hygiene - menstrual period - use calendar to note cycle, show adjustment of sanitary napkins, placement of belt, discarding of used napkins, careful washing to underclothes and body.

POSTURE CONTROL

Objectives:

1. notes changes in height and weight.
2. knows parts of body.
3. maintains correct body posture.

Materials:

1. body pictures
2. body puzzles
3. height and weight charts
4. scale
5. posture chart

Procedure:

Communication and language:

Posture Chart

Keep head erect
Relax arms at sides
Keep shoulders back
Heel contacts ground first while walking
Abdomen does not protrude
Walks with toes pointed ahead
Sits up straight

1. Demonstrates in manner specified parts of the body: Where are your eyes? What do you smell with? Raise your right hand. Touch your nose with your little finger.

   a. Begin with child's own body.
   b. Compare child's body to others' - humans, dolls, animals.
   c. Either use pictures or puzzles to position body parts in proper location.

2. Mark height at beginning of the year. Check periodically to note changes.

   a. Compare with others.

3. Weigh self. Check this periodically for changes. Compare to others.

4. Posture control - is complimented each time correct posture is noted.

   a. Refer to posture chart.
   b. Practice posture control.

Albert Schweitzer School

DAILY LIVING SKILLS EVALUATION

and

Albert Schweitzer School

PRESCHOOL DAILY LIVING SKILLS EVALUATION

by

Joan McCollom

ALBERT SCHWEITZER SCHOOL

DAILY LIVING SKILLS EVALUATION

Name:_____ Birthdate:_____

Diagnosis:_____ Equipment:_____

Rating Key: 1 - Unable to perform task
2 - Always needs assistance
3 - Sometimes needs assistance
4 - Accomplishes with stand-by assistance
5 - Accomplishes without assistance

							COMMENTS
DRESSING AND GROOMING SKILLS							
Unfastening							
Opens front zipper							
Opens front separating zipper							
Unbuckles belt or shoes							
Unties shoes							
Unbuttons							
Opens velcro fastener							
Fastening							
Buttons front buttons							
Closes front snaps							
Closes front zipper							
Closes back zipper							
Buckles belt or shoes							
Closes velcro fastener							
Buttons back buttons							
Ties belt in back							
Laces shoes							
Ties shoes							
Undressing							
Removes pull-over clothes							
Removes pull-down clothes							
Removes front-opening clothes							
Removes back-opening clothes							
Removes shoes							
Removes socks							
Removes braces,other equipment							

							COMMENTS
Dressing							
Puts on over-the-head clothes							
Puts on pull-up clothes							
Puts on front-opening clothes							
Puts on back-opening clothes							
Puts on socks							
Puts on shoes							
Puts on braces, other equipment							
Teeth Care							
Removes toothpaste cap							
Applies toothpaste to brush							
Brushes teeth							
Replaces toothpaste cap							
Care of Hair							
Brushes hair free of tangles							
Combs hair							
Parts hair							
Styles hair							
Uses hair spray							
Washes hair							
Sets hair							
Uses blow dryer							
Bathing							
Turns faucet on/off							
Wash hands							
Dry hands							
Wash face							
Dry face							
Washes self in tub							
Uses shower							
Dries self							
Prepares water for tub or shower							
Transfers in and out of tub or shower							
Uses deodorant							

							COMMENTS
Nail Care							
Scrubs fingernails with brush							
Files nails							
Clips nails, both hands							
Cleans nails							
Clips toenails							
Applies nail polish							
Toileting							
Transfer to and from toilet							
Pull down clothing							
Pull up clothing							
Tears off toilet paper sheets							
Uses toilet paper							
Flush toilet							
Blows nose using tissue							
First Aid							
Clean a cut, scratch, abrasion							
Apply a bandaid							
Recognizes bites, stings, nosebleeds, etc.							
Asks for assistance							
EATING AND FOOD PREPARATION							
Eating							
Manages spoon to feed self							
Manages fork							
Cuts food							
Holds cup or glass, two hands							
Drinks from cup or glass, one hand							
Removes wrapper from straw							
Uses napkin							
Passes food at table							
Serves self							

							COMMENTS
Eating (Cont'd)							
Knows what food is difficult to manage without help							
Pours from pitcher with control							
Uses salt and pepper shakers							
Food Preparation							
Can get food prepared by others from refrigerator or cupboard							
Puts bread in toaster							
Washes fruit and vegetables							
Peels fruit (i.e.,oranges)							
Scrapes raw vegetables with food scraper							
Grates food on food grater							
Stirs liquids with spoon							
Adds liquids to dry ingredients and stirs							
Measures liquids							
Measures dry ingredients							
Operates manual egg beater							
Operates hand-held electric beater							
Spreads butter, jam, peanut butter							
Makes a sandwich							
Prepares a T.V. dinner							
Opens package mixes							
Turns food with a spatula							
Cuts or slices with sharp knife							
Reads and follows directions on prepared mixes							
Reads and follows simple recipes							
Use of Kitchen Appliances							
Opens cans with manual can opener							
Opens cans with electric can opener							
Sets controls on cooktop							
Removes hot items from cooktop							
Removes hot items from oven							
Sets controls on Microwave oven							

								COMMENTS
Use of Kitchen Appliances (Cont'd)								
Uses electric skillet								
Uses toaster								
Uses blender								
Uses proper safety precautions with all appliances								
HOME RELATED PRACTICAL SKILLS								
Washing and Drying Dishes								
Sorts and stacks clean dishes								
Puts dishes away								
Dries easily held dishes & utensils								
Dries large or difficult items								
Stacks and rinses dishes								
Prepare dishwater, rinse water, adds soap								
Washes, rinses dishes								
Scours pots and pans								
Scrapes and rinses dishes in preparation for dishwasher								
Loads and operates electric dishwasher								
Sets and Clears Table								
Places requested items in a place setting								
Sets one simple place setting								
Carries dishes from cupboard to table								
Completely sets table								
Clears unbreakables from table								
Stacks and carries several items								
Brushes crumbs from table								
Wipes table								
Cleans Floors								
Sweeps open areas with household broom								
Sweeps open areas with push broom								
Sweeps in corners & under furniture								

								COMMENTS
Cleans Floors (Cont'd)								
Uses broom and dustpan to pick up dirt								
Uses dust mop								
Wipes up spills								
Wet mops small areas (spills, spots)								
Wet mops floor (changes water, wrings mop)								
Uses vacuum cleaner on floors, carpets								
Uses vacuum to clean upholstered furniture								
Selects, inserts and uses appropriate appliances								
Cleans Other Surfaces								
Dusts furniture								
Uses furniture polish								
Cleans windows (materials selected by an adult)								
Cleans mirrors (materials selected by an adult)								
Cleans sinks, tub								
Selects appropriate materials and tools								
Cleans appliances (stove, refrigerator								
Cleans, polishes silver								
Bed Making								
Smoothes bedding (bed away from wall)								
Smoothes bedding (bed next to wall)								
Tucks edges under mattress								
Puts pillow case on pillow								
Makes mitered corners on bedding								
Makes bed completely (linens on bed)								
Makes bed completely with change of linen								
CARE OF CLOTHES								
Smoothes wrinkles in fabric								
Turns clothes inside out								

								COMMENTS
Care of Clothes (Cont'd)								
Folds small items - straight edges (washcloths)								
Folds odd-shaped items (sport shirts, blue jeans)								
Folds large & bulky items (towels, sheets, blankets)								
Hangs clothes on a hook								
Hangs clothes on a hanger								
Puts hanger on rod in closet								
Puts clothes in drawer								
LAUNDRY								
Use of Washer								
Sorts washable items into 3 categories (white,dark,other)								
Puts clothes in washer and adds pre-measured detergent								
Measures load & places clothes in washer								
Measures and adds cleaning agents								
Turns on washer								
Selects water temperature and cycle settings								
Hand washes clothes								
Use of Dryer								
Loads dryer								
Selects temperature & time settings								
Unloads dryer								
Hangs clothes on line								
Ironing								
Irons flat pieces (board and iron set by adult)								
Sets up and takes down ironing board								
Adds water to steam iron								
Selects iron settings for fabrics								
Irons blouses, shirts								
Irons ruffles, fine fabrics								

							COMMENTS
Sewing							
Pins 2 thicknesses of cloth (matches edges on line)							
Threads a needle							
Knots end of thread							
Mends a simple tear							
Sews on a button							
Turns & sews by hand a simple hem							
Threads sewing machine							
Winds bobbin							
Machine sews seam (on marked line)							
Uses an "Easy Sew" pattern (2-4 pieces)							
Use of Tools							
Uses hammer to drive headed nails							
Pulls nail with claw hammer							
Uses a leverage-type tool to pry off paint can lid							
Uses vise or C clamps to secure materials							
Uses screwdriver to insert screws							
Uses wrenches to tighten and loosen nuts and bolts							
Uses sandpaper to smooth wood surfaces							
Uses paint brush to apply paint							
Uses pliers							
Uses stapler							
Uses ruler to make a straight line							
Uses ruler or tape measure for measuring							
Selects appropriate tool for a specific job							
Yard Care and Gardening							
Uses large garden tools (hoe, rake, shovel)							
Uses small pruning, trimming tools (shears, clippers)							
Sets lawn sprinkler							
Uses spray nozzle (hand held) to water plants							
Operates push lawn mower							

							COMMENTS
Yard Care and Gardening (Cont'd)							
Guides, balance, propels loaded wheelbarrow							
Rakes leaves, clippings							
Weeds beds by hand							
Uses small garden tools (trowel, small hand cultivators)							
Uses watering can to water house plants							
Car Cleaning							
Uses pistol grip hose nozzle							
Uses washing brush attached to hose							
Uses cleaning agents and water							
Uses chamois, cloth to dry car							
Cleans windows inside & outside car							
Cleans upholstery in car							
Empties and cleans ashtrays							
COMMUNITY RELATED SKILLS							
Telephone Skills							
Answers telephone							
Takes a message							
Dials or uses push buttons							
Dials emergency number							
Calls to talk to a friend							
Calls for information							
Uses pay phone							
Looks up number in own telephone list							
Uses phone book, white pages							
Uses phone book, yellow pages							
Transportation, Mobility							
Wheels chair or walks safely on sidewalk							
Crosses street at a light							

							COMMENTS
Transportation, Mobility (cont'd)							
Crosses street at a crosswalk							
Walks over uneven ground							
Uses wheelchair over uneven ground							
Transfers in and out of car							
Fastens seat belt							
Opens car door							
Rides city bus							
Uses Dial-A-Ride							
Calls and uses taxicab							
Recognizes landmarks							
Follows directions							
Gives directions							
Shopping							
Open door of store and go through							
Use directory							
Is familiar with various departments and what is sold in each							
Use elevator							
Use escalator (ONLY IF PRACTICAL AND SAFE)							
Push shopping cart							
Reach items on shelves							
Pay for purchases							
Ask for assistance if necessary							
Money							
Names penny, nickel							
Names dime							
Names quarter, half dollar							
Compares value of coins							
Names bill denominations ($1, $5, $10)							
Combines coins to equal a larger one (2 nickels = 1 dime)							
Combines coins to equal an odd total							
Matches coins to written symbol							

ALBERT SCHWEITZER SCHOOL

PRESCHOOL DAILY LIVING SKILLS EVALUATION

Name:_____ Birthdate:_____

Diagnosis:_____ Equipment:_____

Rating Key: 1 - Unable to perform task
2 - Always needs assistance
3 - Sometimes needs assistance
4 - Accomplishes with stand-by assistance
5 - Accomplishes without assistance

							COMMENTS
DRESSING AND GROOMING SKILLS							
Unfastening							
Unbuttons							
Opens front zipper							
Unlaces							
Opens velcro fastener							
Unbuckles belt or shoes							
Unties							
Fastening							
Close velcro fastener							
Buttons front buttons							
Closes front snaps							
Buckles belt or shoes							
Laces shoes							
Undressing							
Removes pull-over clothes							
Removes pull-down clothes							
Removes front-opening clothes							
Removes back-opening clothes							
Removes shoes							
Removes socks							
Removes braces, other equipment							
Dressing							
Puts on over-the-head clothes							
Puts on pull-up clothes							
Puts on front-opening clothes							

								COMMENTS
Dressing (cont'd)								
Puts on back-opening clothes								
Puts on socks								
Puts on shoes								
Puts on braces, other equipment								
Teeth Care								
Applies toothpaste to brush								
Brushes teeth								
Rinses mouth								
Care of Hair								
Brushes hair								
Combs hair								
Bathing								
Wash hands								
Dry hands								
Wash face								
Dry face								
Wash self in tub								
Dries self								
Transfers in and out of tub safely								
Toileting								
Pull down clothing								
Pull up clothing								
Transfer to and from toilet								
Use toilet paper								
Flush toilet								
EATING AND FOOD PREPARATION								
Eating								
Sucks from a straw								
Holds cup or glass without assistance, two hands								

							COMMENTS
Eating (cont'd)							
Drinks from cup or glass, one hand							
Uses spoon to feed self							
Uses fork							
Uses knife for spreading							
Pours from pitcher							
Food Preparation							
Can get own drink							
Makes toast in toaster							
Stirs							
Operates manual egg beater							
Spreads butter or jam							
Unscrews lids on jars							
Screws lids on jars							
Can get selected food items from refrigerator or cupboard							
Uses rolling pin to roll out cooky or biscuit dough							
Uses cooky cutter							
HOME RELATED PRACTICAL SKILLS							
Dishes							
Dries small unbreakable dishes							
Washes unbreakable dishes							
Table Setting							
Carries unbreakables to and from the table							
Places requested items in a place setting							
Bed Making							
Smoothes bedding							
Assists in straightening covers							

							COMMENTS
Care of Clothes							
Hangs clothes on hook							
Smoothes wrinkles							
Folds small items with straight edges (wash cloths, small towels)							
Folds T-shirts, pants							
Turns clothes right side out as needed							
Miscellaneous Household Tasks							
Cleans up toys							
Helps put things away							
Wipes up spills							
Imitates house work							
Assists with house work							
Vaccuming							
Dusting							
Cleaning mirrors, windows							

SKILLS NEEDED FOR SHELTERED WORKSHOP EMPLOYMENT

by

Patricia L. Barrett

SKILLS NEEDED FOR SHELTERED WORKSHOP EMPLOYMENT

by: Patricia L. Barrett

Students in special education who have handicapping conditions so severe that competitive employment is not a realistic occupational choice for the future will find that sheltered employment is a viable alternative for their adult work life. Sheltered employment offers a supervised work environment which allows the clients to work at their own production rate, learn new skills, and receive remuneration for the work that they are able to complete in a given period of time.

Clients with nearly all types of handicaps and at all levels of vocational skills can find placement in a sheltered program. There are day care programs which emphasize developing basic self-help skills as a prerequisite to proper work behavior and independent living; work activity centers which enhance these same skills while providing prevocational training in a closely supervised environment; and sheltered workshops where clients work on the assembly of products for industry or on supervised work training crews in the community in preparation for competitive employment.

In a sheltered workshop, the clients are placed in a work setting that closely resembles the real world of work. They are expected to demonstrate appropriate work behavior such as the ability to follow directions and get along with supervisors and peers, the proper use of tools, etc. They are also expected to produce at least 50% of the normal rate of production based on industrial standards of performance. While these requirements may seem steep to teachers of the severely handicapped, they are not unattainable if vocational education is started with the very young in our special education classes.

It is strongly recommended that teachers and parents of handicapped students spend some time visiting the agencies in their community to see what behaviors

their students will be expected to elicit in their adult life and plan curriculum and activities accordingly. Students who do not have the minimum vocational competencies may have a more difficult transition into the adult handicapped community and may be denied admittance into the local sheltered programs.

To enable our students to be competitive with others seeking employment in sheltered environments, we must teach the required competencies in our special education classrooms. Prevocational training in our classroom should be progressive, the older the student, the greater the emphasis on vocational preparation. Younger children, however, can be taught the more basic skills of attending to a task, completing assignments, and developing the social and cognitive skills that will help them in their adult work life.

Listed below are the entrance requirements for admittance into a sheltered workshop. The list has been adapted from the entrance criteria of the Fontana Rehabilitation Workshop in Fontana, California, with some modifications to fit the classroom setting. Teachers of the less able students should keep in mind that requirements for work activity and day care programs are less stringent and not all sheltered workshops have the same requirements. It is therefore in the students best interest for teachers to obtain the list of prerequisites for admittance into community programs in their areas and use these competencies to design the basic vocational skill development program for their students.

REQUIREMENTS FOR SHELTERED WORKSHOP EMPLOYMENT

The student will:

1. Maintain good attendance record in school.
2. Learn punctuality (to and from lunch, recess, etc.).
3. Know transportation safety procedures, (crossing streets, riding buses, recognizing landmarks, getting to and from school, etc.).

4. Know safety in work related activities, (firedrills, tool safety, operation of appliances, first aid techniques, etc.).
5. Attend to a single complex task, independently, for long periods of time.
6. Work on assembly line tasks with other students.
7. Get along with peers.
8. Practice good hygiene. (A concern of work supervisors is body cleanliness.)
9. Be willing to follow teacher's directions.
10. Be able to take constructive criticism.
11. Work under pressure on tasks, assignments.
12. Be able to write and recognize own name.
13. Have basic money management skills, (make change, purchase small items, etc.).
14. Discriminate colors. (Many contracts in workshops require assembly by color.)
15. Know basic survival words.
16. Dress appropriately for work.
17. Take care of body needs unassisted.
18. Use the telephone independently.
19. Follow verbal instructions.
20. Demonstrate appropriate work behavior.

One additional skill that I feel is extremely important and beneficial to the students in their adult personal and economic life is the ability to use common tools correctly. Students need to be afforded the opportunity to handle, and properly use such tools as saws, hammers, planes, pliers, screwdrivers, drills, etc. They also need to correctly use the basic electric tools that are so vital to independent living. With this knowledge, they are less dependent

on others and they will be able to work in the higher level tasks in the sheltered workshops which require basic knowledge of tools.

It is not expected that all of our students with handicaps will have developed all of the basic competencies required for sheltered workshops before completing their education. But the more appropriate work behaviors our students have, the greater their opportunity will be for acceptance into a higher level of sheltered employment with potential for competitive employment in the community. We can't afford to teach them less.

DEVELOPMENT OF ORIENTATION & MOBILITY SKILLS IN THE DEAF-BLIND, MULTIPLY-HANDICAPPED BLIND VOCATIONAL PROGRAM

by

Bil Hawkins

When the Deaf/Blind Prevocational Program was developed at the California School for the Blind in 1974, mobility was viewed as the movement required to get the students from one point of the program to another, and to enable them to travel within the surrounding community. Of the nine students in the pilot program, only one was totally blind. Because most of the students had travel vision in at least one eye, the teachers thought more in terms of utilization of low vision for travel and less in terms of cane techniques requiring formal instruction.

Evelyn Greenleaf, Principal and Charles Zemalis, Coordinator of the program, who originally envisioned the Prevocational Training Project, saw it as a way to teach vocational skills, work tolerance, flexibility and a continuum of gross to fine motor skills as well as a way to teach sensory integration, academic concepts and communication skills. Mobility soon became an important integrating factor in the very structure of the prevocational program.

The long term goal of the program was to prepare the students involved for later vocational placement either in a sheltered setting or other more competitive employment. It was obvious that they needed more than just work skills. They needed to learn how to travel to and return from their future work sites.

Any residential school functions with schedules (patterns of time) and routes (patterns of space and direction). Even the young children in a residential school engage in a considerable amount of structured movement. The younger children may be taken by teachers and counselors or moved in groups but they usually go from one "person" to another. The classrooms are separated by a considerable distance from the dining hall, the dorms, the gym and other parts of the complete program on campus. The young children internalize a rough knowledge

of schedules and come to have certain expectations of the orderliness of that schedule - - especially around mealtimes.

William Evans developed the pre-sheltered workshop and purposely set it up several hundred yards away from the classrooms. In that way, the students were presented with an ongoing opportunity to deal with duration of time and space while travelling to and from the shop. The repetition of a familiar route featuring several different types of textures and terrain provided a valuable set of features for the students to learn to navigate. The students dealt with a specific purpose and destination at a certain time of day.

Before the students left for their jobs, they would put on a "work uniform" to heighten the anticipation of the break with the old site. The students would put on their smocks and wait a minute or two until the minute hand of the clock moved into position. The teacher would turn out the lights, one student would pull the drapes, another would shut the door and all would set off for the new destination. The students had an active participation in this break from the past and movement into the future.

This emphasis on time embodies a number of important functions. Becoming proficient in estimating the approximate duration of the current activity fosters an anticipation of a coming event so the change of place or task neccesitates a break from and a movement towards. The point of origin becomes tied functionally with the past, the destination to the future. The temporal framework must exist with enough regularity to enable the students to learn to deal with the past, present and furture in movement and in language, sign or symbol.

The patterns of space and time, the schedules and routes have to be consistent to form that orderliness and predictability which many of the multi-handicapped blind and retarded blind need so desperately to enable them to deal with

their world. But to make the routes so concrete, the schedules so unvarying, that the students themselves become inflexible in dealing with any changes defeats the purpose. Regularity provides a feeling of security to which a student may return, if necessary, after small changes and modifications are made.

Schedules and routes can and must vary. Do something else for a work period every now and then. Develop alternatives so that the students are able to develop perferences and possibly make choices. If too much order is maintained for too long it is exceedingly difficult for the students to break out of the pattern. Some children so desperately crave predictability (security) that they learn to tolerate no variance.

Early in the program the students carried specific tools to each job on campus, such as cleaning buckets, sponges and rags to clean windows and mirrors in the infirmary. The tools were "matched" in class to pictures the students had made of the tools and supplies. Gradually the pictures they used in their matching tasks evolved into simplified pictures and then into more abstract symbols. Different tools used in the workshop became symbols for tasks in the workshop and then into destinations allied to a specific purpose.

Instructors used speech, signs, gestures, words or phrases with distinctive tone configurations in conjunction with the symbols to indicate different times, destinations and purposes.

The motions and interactions with tools at the work site became gestures that also evolved into signs or symbols to enable the teacher and student to "sequence" a vareity of changes of tasks and positions within the several rooms in the shop. The symbols drawn on index cards could be layed out to indicate the sequences of steps in a more complex construction task. Or a student could lay out the symbols or give the signs for a certain number of steps to be per-

formed at one location and then several successive steps or stages to be carried out at another site. This progressive building of conceptualization skills and the flexibility to be able to change task and modify sequences of work stages was an important building block in the students' repertoire of skills. When the student had to move between buildings he layed out the destination and the cards for the landmarks he would use from the point of origin. As these were also done in sequence, the progression of landmarks enabled the student to conceptualize the route and to remember each segment of the journey.

Each series of signs or symbols represented the origin, the destination, the purpose of the journey, and the time of departure and the return to the point of origin. The students were learning to map out a time space continuum and their own place and purpose on that grid.

As many students associated each specific work site with the teacher in charge, the sign of that particular teacher came to represent the destination as well as the task. Many of the students themselves discovered the link of person, place and purpose.

This combination of movement, communication and vocational skills were used to set up still more tasks. Charles Zemalis set up attendance taker jobs where the deaf/blind students with no sight or hearing went from room to room using fingerspelling to ask each teacher who was absent. The students then transcribed the information onto a braille slate with a stylus and finally typed up a report for the attendance office and brought it up to them.

Other younger students went from classroom to classroom emptying the trash cans. While other still more involved students with multiple handicaps in addition to their deaf/blindness assisted on certain steps of the work. Three students with cerebral palsy pushed the large wheeled garbage can. Each used

its weight and stability to balance and steady themselves.

A few students learned the route to the mail box. They collected letters from the offices on campus at a designated time each day and carried the letters to the mailbox in their mail pouches. Each learned the language or symbols for the job. Each student also had a distinctive uniform, hat or smock which was "awarded" once the student learned the route fairly well.

Many of the office personnel throughout the campus often had collating work to be done. The secretaries considered it a time-consuming but necessary task. The students went to each office that requested their services, brought the work back to class to finish and then returned it to the person who needed it. The students were learning to fit new work into their schedules.

When jobs entailed moving between buildings the students had to learn the intervening landmarks along the route. The "techniques" themselves served as a kind of landmark along the way - - they provided that interation with the environment that the students could turn into inner (conceptualization) and outer (expressive) language and communication. The most useful landmarks were those which required some interaction on the part of the student - - like stairs. The students learned to recognize and communicate terrain features like hills, gravel, aggregate, grass, bushes, etc. Clusters of clues such as the juxtaposition of wall and hedge, lampost and fence became useful to enable students to discriminate where they were.

Some students learned to touch successive landmarks, each a certain number of times. For example a student might touch the first landmark once, the next with two bumps of the knuckles, the next with three slaps of the palm to be able to sequence the landmarks leading to a certain turn. Students might fold fingers of one hand into their palm at successive doorways to keep track of openings

before going into a building or making a turn.

In areas where there were few really noticeable landmarks leading to specific work sites, a teacher would instigate some physical code between himself and the student. A teacher might touch a student's left shoulder at the grass, changing to the other side and tapping the right shoulder at the intersecting sidewalk, etc. When this was later combined with a growing awareness of the duration of time and distance between landmarks the students became able to approximate turns and changes of directions. Some students actually touched their own elbows or shoulders to replicate the sequence - - even if the teachers were no longer there. This language of movement worked even for children with no speech and those who had mastered few signs.

The signs of "feeling a wall" on one side then turning and feeling it on the other side enabled some younger students to learn to do simple "route returns", changes in directions along the same route.

Cause and effect are extremely important relationships and difficult to learn for those deaf blind and multihandicapped blind youngsters whose combinations of sensory impairments fragment their sense of reality and tend to give them a "splintered" view of the world.

Many residential students, especially the most severely involved, are used to being handed things, used to having their world structured for them. To learn to earn their own way is a cornerstone of their education and it must be borne constantly in mind by their teachers.

The students were paid by the hour for their work. They went to the business office on payday to receive their wages after doing a lesson on why they earned a specific amount. They immediately walked to a store with their class to spend part of the money. As soon as each student was able they were assisted

in opening a savings account at a local bank. Immediately after being paid, they walked to the bank with their teacher to deposit part of their earnings and take out an amount of their own choosing. They would stop off at a local store on the way back to school.

Those with speech, signs or gestures chose what they wanted to buy at the store. Others carried pictures of an item they wanted to buy which they had cut from a newspaper or magazine. The important thing was that they were travelling to a place to deal with the money they had earned and then travelling to a store to make a choice of what to purchase with that same money.

Between 1976 and 1979 the students in the Pre-Vocational Program visited a sheltered workshop in the San Francisco area roughly each two weeks. They would each learn a job and work during the morning and the instructors would take them out one at a time to teach them the routes to the break area, the washroom, the time clock etc. There was enough repetition of site visits to allow the students to make use of the routes a month or two later.

During the afternoons of workshop visits the students would visit museums, parks, zoos, malls, department stores - - whatever was in the area. The students and teachers would often have lunch in these areas and learned where local stores or refreshment areas were so they could buy drinks or chips to go with their lunch.

As the students became older they began to choose the areas they wanted to visit and the items they wanted to buy at department stores (such as clothing and shoes). The opportunities for mobility and sensory training in department stores and malls are manifold. When mobility training is allied to a specific purpose, to a student's own specific need borne of his own choice, the benefit from the instruction is made vastly more valuable. Students learned to use the

edge of adjoining textures in department stores, such as linoleum and carpet. They learned to become adept with escalators and comfortable in the use of elevators.

Constant contact with the community, now vastly extended by the students' familiarity and ease with public transportation, developed an inner sense of control, communication skills and self confidence as well as building a self-image of a traveller.

The six years of the Pre Vocational Program nurtured seeds of independence within the students that grew into a sense of control expressed from within.

Now that those students are in their late teens and are being served by credentialled mobility teachers for the first time, the mobility staff finds that the students have a sense of direction far deeper than merely that of the cardinal directions. They have a sense of inner control that forms a solid basis on which to teach the cane techniques.

Mobility in conjunction with a vocational program provides a way to link the world into a relationship with a student. From this vantage point it is not only the movement of the cane back and forth that constitutes mobility in its most profound sense, but the movement of the student into the world and his return. Mobility enables a student to become part of that world, to contribute to it and to receive from it in turn.

Mobility skills provide each student the access to approach, embody and express, each their varying measures of freedom, in a way uniquely their own . . .

ACTIVITIES & JIGS

by

California School for the Blind

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Riverside County Schools

Southwestern Regional Deaf-Blind Center

ACTIVITIES & JIGS

Most of the activities in this section will require some type of jig for the student to perform the task. The design and construction of the jigs is quite simple. Most of the jigs are made of wood, however, they could be made of other materials. These jigs are very sturdy and should be long lasting. Directions are included for all of the jigs.

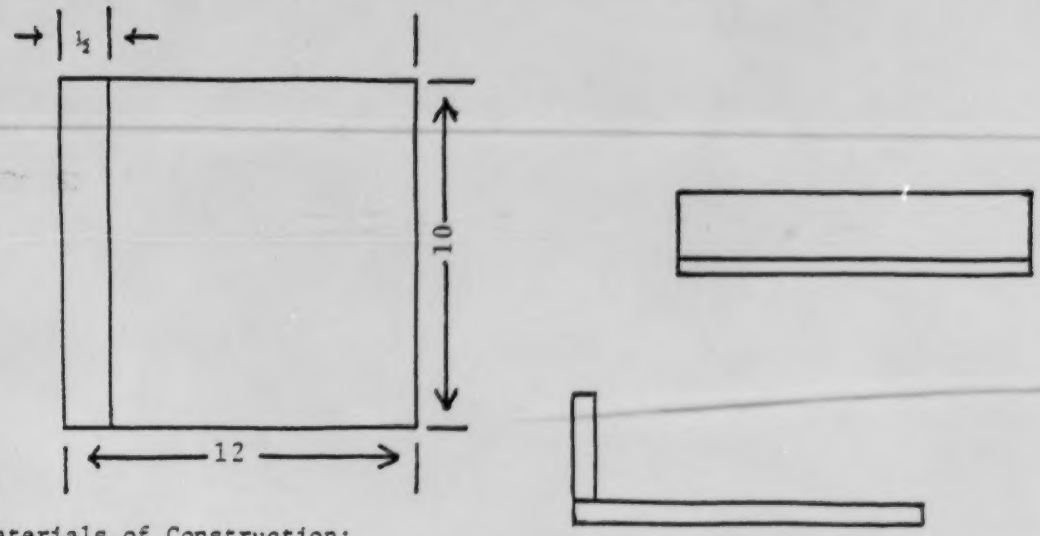
The activities use various materials for construction which can be obtained from the local school, students, parents, and community. Those operations which require the purchase of materials are of the type that can be used over and over again.

These activities are designed to help the classroom teacher develop a simulated work experience program. The activities are designed to prepare the student for sheltered workshop and trans-community occupations. The activities are simple in nature and mastery of any or all of them are within the realm of the deaf/blind and severely handicapped student. Other indicators for vocational potential, such as vocational assessment, is suggested for the secondary student. See appendix for list of various tests that can be used in assessment.

In selecting activities from this section for your students, the following guidelines must be considered:

1. Keep it safe for the student to perform.
2. Keep it within the student's range of ability.
3. Teach for mastery through repetition.

PAPER FOLDING - IN HALF



Materials of Construction:

1 piece ¼" pegboard 10" by 12"
1 piece pine ½" by 1½" by 10"
3 small finishing nails 1" long wood glue.

Task Objective:

The student should be able to fold paper in half evenly.

Potential Use:

The folded paper can be used for stuffing envelopes or for stapling exercise.

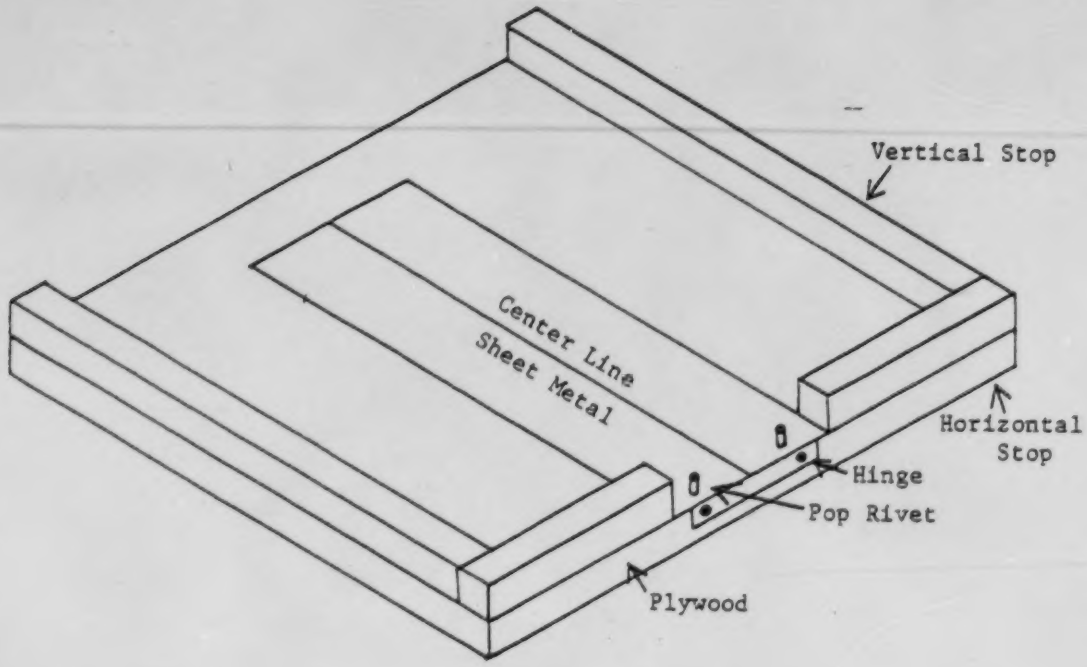
The pegboard bottom can also be used for the block assembly exercise.

Source of Materials:

The paper can be obtained from scraps at school and local businesses. Print shops can be another source of supply.

Measures:

Finger dexterity
Manual dexterity
Motor coordination



Materials for Jig Construction:

1 piece 3/4" plywood 11½" by 12½"
3 pieces ½" by ½" wood 12"
1 piece sheetmetal 3 3/4" by 10"
2" flat hinge
1" nails, woodscrews, pop rivets

Jig Construction Procedure:

1. Draw a line 6½" in from the side of the 3/4" plywood.
2. Draw a line down the middle of the sheetmetal. Fasten the hinge to sheetmetal with two pop rivets. Fasten the other part of the hinge to the edge of the plywood so that the center line of the sheetmetal is directly over the line drawn on the plywood in Step #1.
3. Cut one of the ½" by ½" by 12" pieces of wood into two pieces four inches long and nail them on top of the plywood to form the horizontal paper stops. They should be placed far enough in from the edge of the plywood so that when the paper is folded, it will not touch the hinge.
4. Measure 5½" right and left of the center line from Step #1 and draw two vertical lines.
5. Cut two pieces of ½" by ½" wood long enough to go from the bottom horizontal paper stop (Step #3) to the top edge of the plywood. Nail the strips of wood along the lines marked in Step #4.

Manipulative Activity:

The student is to place a standard sheet of 8½" by 11" paper in the folding jig and fold it into three parts.

Task Procedure:

1. The jig is opened.
2. The paper is placed in the jig.
3. The metal part of the jig is closed.
4. The paper is folded and creased.
5. The paper is removed and placed in an appropriate pile.

Task Objective:

The student should be able to fold paper neatly, rapidly and stack it in an organized manner.

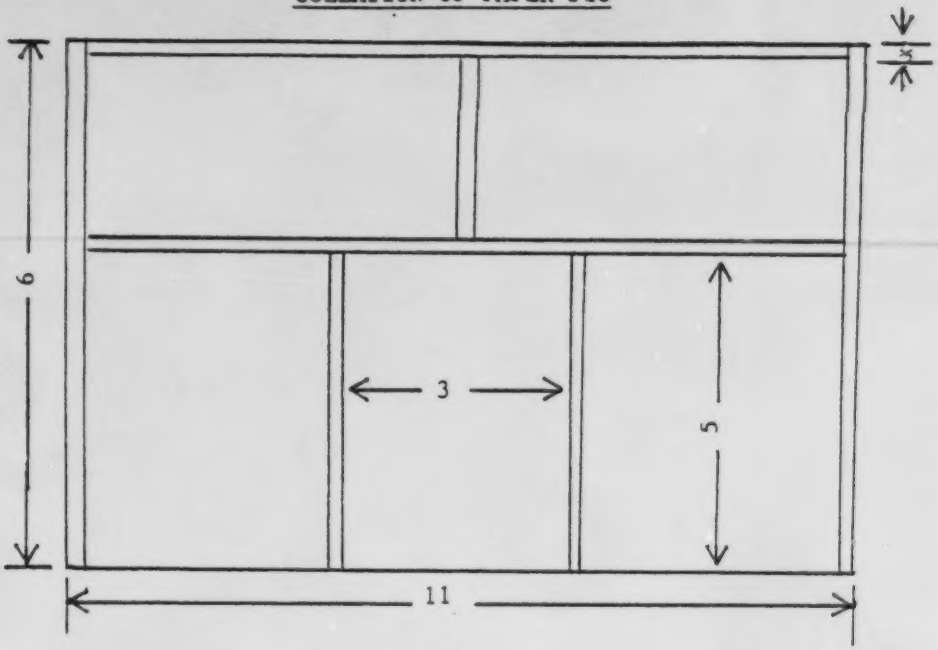
Potential Use:

The activity has direct usefulness in school and workshop situations.

Sources of Practice Materials:

Most schools and many businesses have mimeograph machines and have a constant overrun of paper. It is also possible to obtain scrap paper from printers or paper salvage companies.

COLLATION OF PAPER JIG



Materials of Construction:

1 piece of pine 3/4" by 9" by 11"
2 pieces of pine ½" by 1½" by 9"
2 pieces of pine ½" by 1½" by 10
2 pieces of pine ½" by 1½" by 5"
1 piece of pine ½" by 1½" by 3"
Assorted 1" finishing nails
Wood glue

Task Objective:

The student should be able to collate different sizes, color, and textures of paper and materials.

Potential Use:

The collated paper can be used in the stapling exercise.

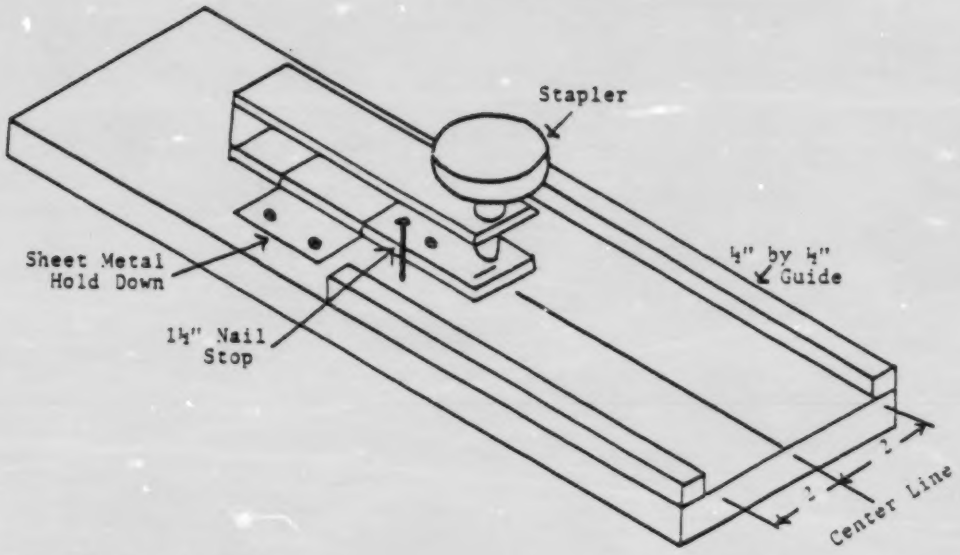
The stapled paper then can be used in the staple removing exercise or for mini note pads.

Source of Materials:

The paper can be obtained from scraps at school and local businesses. Also, print shops can be another source of supply.

The Riverside County print shop (788-6585) will cut the paper to size for you if you don't have a paper cutter.

STAPLING FOLDED PAPER



Materials for Jig Construction:

commercial stapler and staples
1 piece 3/4" plywood 5½" by 16"
2 pieces ½" by ½" by 12" wood
1 piece sheetmetal 2" by 4"
(4) ½" round head wood screws
(10) 1" finishing nails

Jig Construction Procedure:

1. Drill four 3/16" holes in the sheetmetal.
2. Bend the sheetmetal to fit over the base of the stapler.
3. Draw a line down the middle of the plywood.
4. Fasten the stapler down to the plywood using the wood screws and the sheetmetal strap made in Step #2. Be sure that the stapler is on the center line drawn in Step #3.
5. Measure two inches on either side of the center line and draw two lines parallel to the line drawn in Step #3.
6. Nail the ½" by ½" by 12" pieces of wood along the lines marked in Step #5.
7. Measure back 1½" from the front edge of the stapler toward its hinge. Drive 1½" nail on both sides of the stapler to make a stop.

Manipulative Activity:

The student is to staple folded paper into an appropriate unit.

Task Procedure:

1. The folded paper is placed in the stapler as far as possible.

2. The stapler is pressed or struck lightly.
3. The paper is turned end for end and then repeat Step #2.
4. The stapled work is removed and placed in an appropriate pile.

Task Objective:

The student should be able to staple folded paper neatly, rapidly, and stack it in an organized manner.

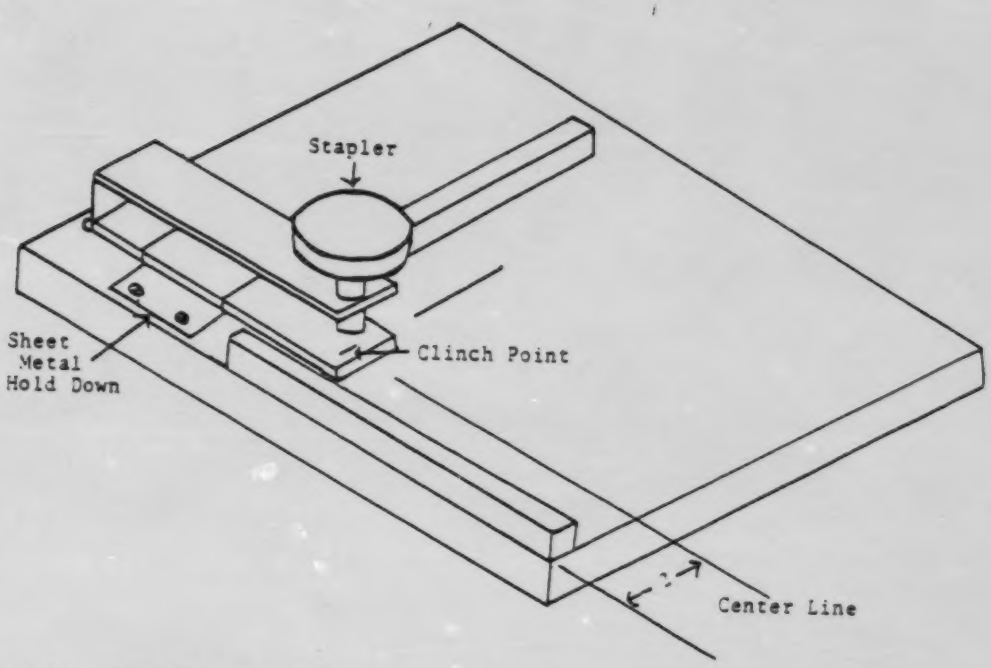
Potential Use:

The activity has direct usefulness in schools and workshop situations.

Sources of Practice Materials:

Most schools and many businesses have memeograph machines and have a constant overrun of paper. It is also possible to obtain scrap paper from printers or paper salvage companies.

STAPLING LOOSE COLLATED PAPER



Materials for Jig Construction:

commercial stapler and staples
1 piece of pine 3/4" by 10" by 6"
1 piece of pine ½" by ½" by 11"
1 piece of pine ½" by ½" by 6"
1 piece sheetmetal 2" by 4"
(4) ½" round head wood screws
(10) 1" finishing nails

Jig Construction Procedure:

1. Drill four 3/16" holes in the sheetmetal.
2. Bend the sheetmetal to fit over the base of the stapler.
3. Measure two inches in from the left edge of the plywood and draw a line parallel to it.
4. Fasten the stapler down to the pine using the woodscrews and the sheetmetal strap made in Step #2. Be sure that the stapler is on the center line drawn in Step #3. The clinch point of the stapler should be ten inches from the front edge of the pine.
5. Nail the ½" by ½" by 11" strip along the edge of the wood and parallel to the line made in Step #3.
6. Nail the ½" by ½" by 6" strip so that it is 1" back from the clinch point of the stapler. The strip should be at right angles to the strip in Step #5.

Manipulative Activity:

The student is to staple loose collated paper into an appropriate unit.

Task Procedure:

1. The sheets of paper are collated in order.
2. The loose sheets of paper are joggled into a uniform size.
3. The paper is placed in the stapling jig.
4. The stapler is pressed or struck lightly.
5. The stapled work is placed in an appropriate pile.

Task Objective:

The student should be able to staple loose collated paper neatly, rapidly and stack it in an organized manner.

Potential Use:

The activity has direct usefulness in schools and workshop situation.

Sources of Practice Materials:

Most schools and many businesses have mimeograph machines and have a constant overrun of paper. It is also possible to obtain scrap paper from printers or paper salvage companies.

STAPLE REMOVING

Materials:

Staple removers can be purchased from a stationery store.

Manipulative Activity:

The student is to remove staples from paper.

Task Procedure:

1. The jaws of the staple remover are placed over the top of the staple.
2. The staple remover is squeezed to withdraw the staple from the paper.
3. The paper can be discarded or put through the stapling cycle again.

Task Objectives:

The student should be able to remove staples from paper neatly, rapidly and without tearing the paper.

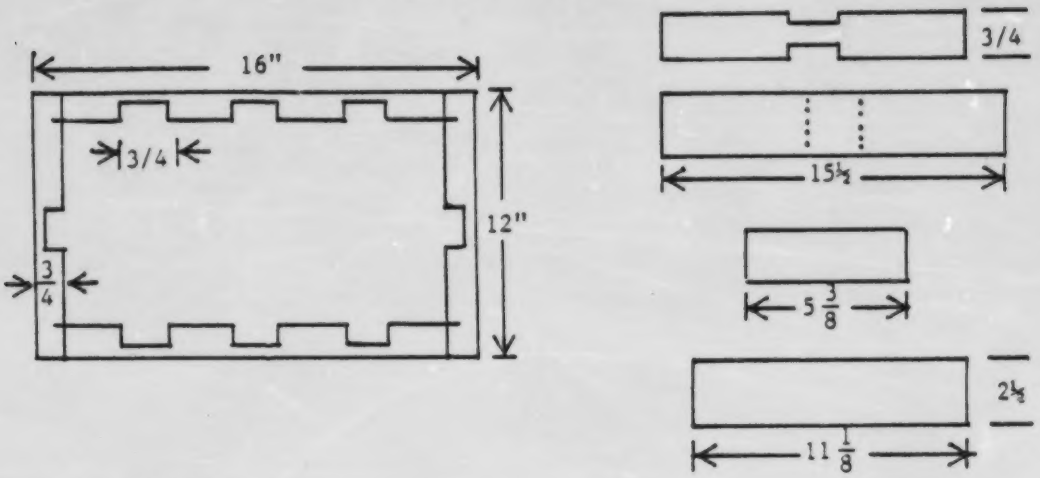
Potential Uses:

Staple removing can be used in activities involving the recycling of paper.

Sources of Practice Materials:

It is possible to obtain stapled scrap paper from printers or paper salvage companies. (See, STAPLING FOLDED PAPER, and STAPLING LOOSE COLLATED PAPER.)

FOUR-IN-ONE SORTING BOX



Materials of Construction:

2 pieces of pine 3/4" by 2½" by 16" (side rail)
2 pieces of pine 3/4" by 2½" by 12" (end rail)
3 pieces of pine 3/4" by 2½" by 11" (divider)
2 pieces of pine 3/4" by 2½" by 8" (divider)
1 piece of pine ¼" by 11 1/16" by 15 7/8"
wood glue
(15) 4-D finishing nails

Assembly:

1. Divide side rail into 1/3 cut 3/4" dado.
2. Cut dado 3/4" on each end for side rail.
3. Cut dado 3/4" on center of end rails.
4. Rabbit bottom of all rails for bottom of sorting box.
5. Cut 11" divider to size (one 11" divider cut 3/4" dado on both sides).
6. Cut 8" divider to size.
7. Cut pegboard bottom to size.
8. Assemble with glue and 4-D nails.

Potential Use:

Sorting boxes can be used for sorting colors, sizes, shapes classification of items, etc. Be careful that only one concept is taught at a time or it may confuse the student. If matching colors is the skill to be taught, have colored chips only and not a lot of different shapes as well. The basics must be mastered before more complex tasks can be introduced.

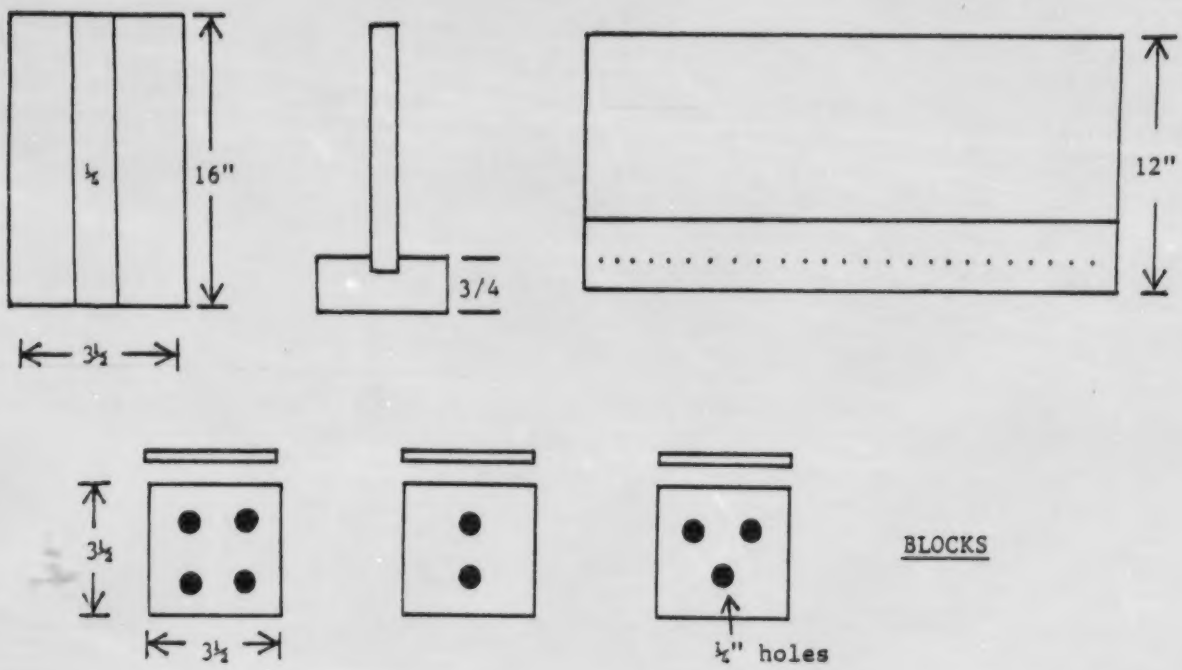
Directions:

Place a large pile of one item of different sizes or colors and have the student place the items in the appropriate boxes. A sample of what belongs in each compartment may be taped to the front of the box or put on a template in front of the compartment.

Suggestions:

Students may fill baggies when they are completed. Students may sit across from each other and have two work on one task. This teaches peer interaction needed on an assembly line. The sorting box with out the dividers may be used in the block assembly.

BLOCK ASSEMBLY



Materials:

1 piece 2" by 4" by 16" bottom
1 piece ½" by 12" by 16" pegboard
3 pieces 3/4" by 3½" by 3½" pine blocks
9 bolts ½" by 2"
9 nuts ½" by 20
9 each ½" washers

Assembly:

1. Cut ½" dado on center the length of bottom 3/4" deep.
2. Cut pegboard to size.
3. Cut blocks to size.
4. Drill holes in blocks to match in pegboard.
5. Glue pegboard into groove cut into 2" by 4".

Directions:

Student matches holes on block to pegboard. Student places bolt through holes and secures with washer and nut. Disassemble when completed. Time and record. Student works on speed and dexterity.

Task Objective:

The student should be able to use wrenches, screwdrivers, and hand manipulation of nuts & bolts.

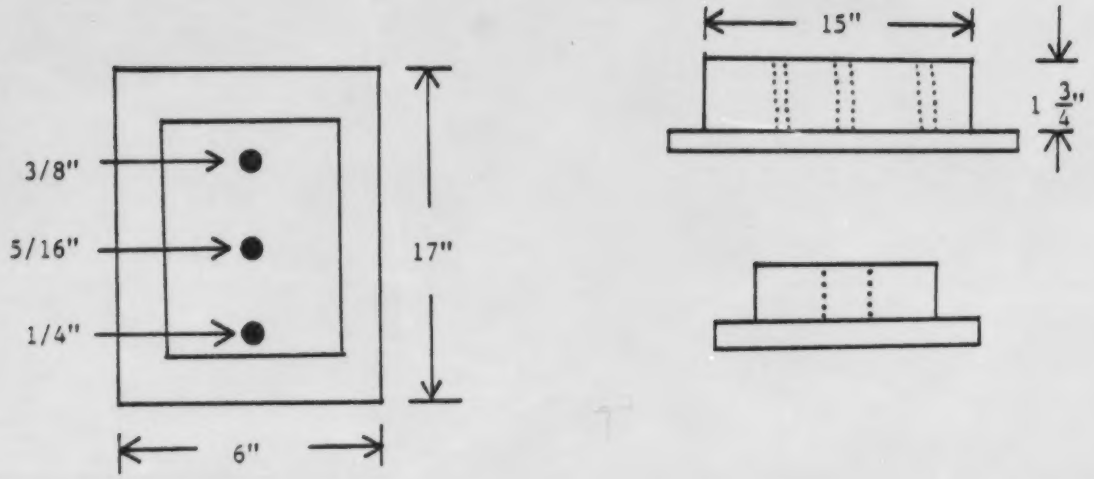
Potential Use:

The three jigs can be used for sizing of nuts, bolts, and washers. Hand strength is developed by tightening of the nuts & bolts. This helps develop manual dexterity and hand-finger coordination. The sorting box can also be used for the block assembly.

Source of Materials:

The nuts & bolts can be obtained from machine shops, hardware stores, and manufacturing companies. The tools can be obtained from the local merchants.

WRENCH ASSEMBLY

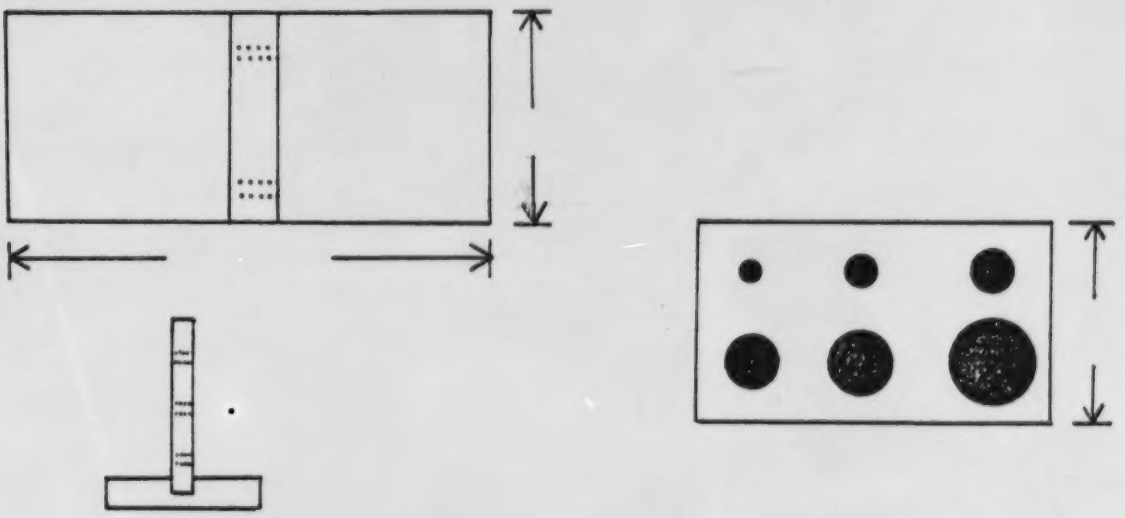


Materials of Construction:

1 piece pine 3/4" by 6" by 17"
1 piece 2" by 4" by 15"
(1) ¼" by 20 by 2½" bolt - NC
(1) ¼" by 20 nut - NC
(1) 5/16" by 24 by 2½" bolt - NC
(1) 5/16" by 24 nut - NC
(1) 3/8" by 16 by 2½" bolt - NC
(1) 3/8" by 16 nut - NC
assorted 2" finishing nails
wood glue

*See Block Assembly directions.

HAND-FINGER ASSEMBLY

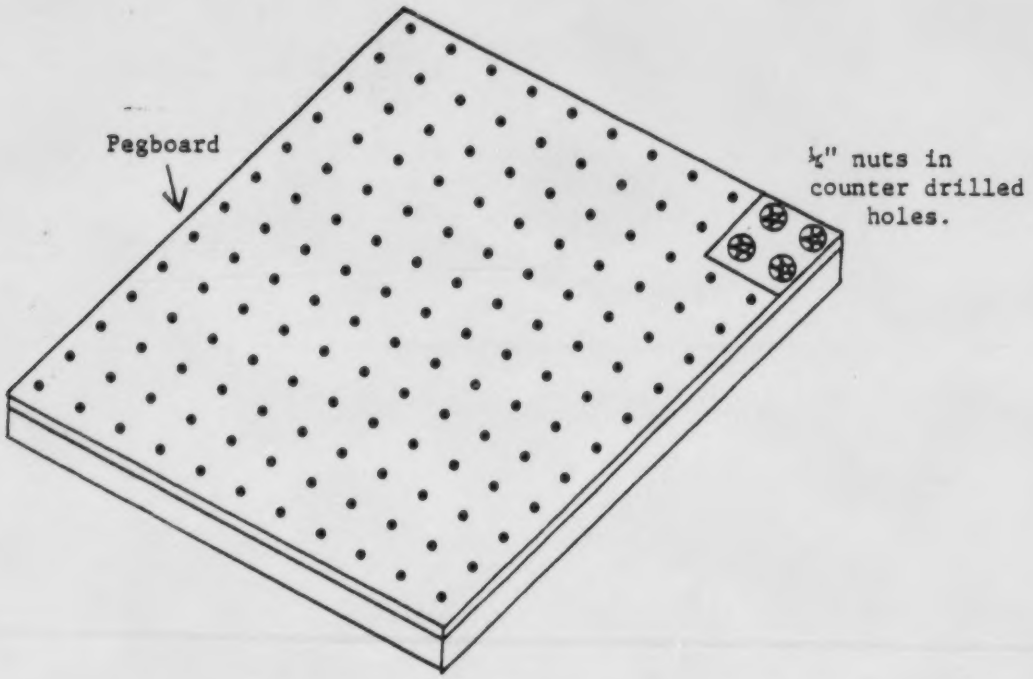


Materials of Construction:

1 piece of 3/4" by 8" by 10" pine
1 piece of 3/4" by 8" by 11" pine
1 nut 3/4" - NC
1 bolt 3/4" by 2" - NC
1 nut 5/8" - NC
1 bolt 5/8" by 2" - NC
1 nut ½" - NC
1 bolt ½" by 2" - NC
1 nut 3/8" - NC
1 bolt 3/8" by 2" - NC
1 nut 5/16" - NC
1 bolt 5/16" by 2" - NC
1 nut ¼" - NC
1 bolt ¼" by 2" - NC
finishing nails
wood glue

NOTE: You may desire to have washers for the above size bolts.

NUT, BOLT, SCREWDRIVER AND WRENCH PRACTICE BOARD



Materials for Jig Construction:

1 piece pegboard 12" by 12"
1 piece 3/4" plywood 12" by 12"
¼" by 20 hex nuts
¼" by 20 stove bolts, 1-½

Jig Construction Procedure:

1. Place the pegboard over the plywood and lightly tack it in place.
2. Using a ¼" drill bit, drill through the pegboard holes and the plywood. Do all of the holes.
3. Remove the pegboard and counter drill the holes in the plywood to a depth of ¼" with a 7/16" drill bit.
4. Hammer a nut into each of the counter drilled holes.
5. Replace the pegboard over the nuts and nail it securely in place.

Manipulative Activity:

The student is to use a screwdriver to fasten a flat headed stove bolt from one side of the board and a wrench to fasten a nut on the opposite side of the head.

Task Procedure:

1. The stove bolt is started in the threads by using the fingers or a screwdriver.
2. The bolt is tightened with the screwdriver.
3. Steps #1 and #2 are repeated until the entire board is filled.
4. The board is turned over and a nut is palced on the end of each bolt and tightened with a socket wrench.
5. When the procedure is completed, the steps are reversed and the nuts and bolts are removed and placed in their proper boxes for reuse.

NOTE: A flat washer can be placed under the head of the bolt in Step #1 and under the nut in Step #4. This will add two steps to the job and will also help to protect the jig. The students should be told not to use too much pressure when tightening the nuts and bolts.

Task Objective:

The student should be able to use a screwdriver and wrench.

Potential Use:

Many simple assembly jobs require the use of a screwdriver and wrench.

The activity has direct usefulness in production jobs.

Sources of Practice Materials:

Nuts, Bolts, and Washers are available commercially in most hardware stores.

STRAIGHTENING BENT NAILS

Materials for Jig Construction:

Optional
¼" steel plate one foot square
bottom of an old electric iron
large metal working vise

Manipulative Activity:

The student is to straighten bent nails by hammering them on a hard surface.

Task Procedure:

1. Each nail is rolled on a hard metal surface to determine where it it bent.
2. When the bend is located, it is hit with the hammer.
3. The nail is again rolled on the metal surface for a check to see if it is tryly straight.
4. When the entire straightening job is completed, the container of nails is returned to storage.

Potential Use:

Hammering could be used in the recovery of damaged metal parts.

Sources of Practice Materials:

Bent nails can often be found where there is some form of construction work being done.

ROUGH SORTING: NUTS, BOLTS, WASHERS AND NAILS

Materials Needed:

4 large cans
1 lb. 5/16" flat washers
1 lb. 3/8" flat washers
1 lb. ½" flat washers
(100) ¼" by 28 hex nuts
(100) ¼" by 20 hex nuts
(100) 5/16" by 18 nuts
(100) 5/16" by 24 nuts
(100) 3/8" by 16 nuts
(100) 3/8" by 24 nuts
(100) ½" by 13 nuts
(100) ½" by 20 nuts
(100) ¼" by 28 bolts, 1½"
(100) ¼" by 28 bolts, 2"
(100) ¼" by 28 bolts, 2½"
(100) ¼" by 20 bolts, 1½"
(100) ¼" by 20 bolts, 2"
(100) ¼" by 20 bolts, 2½"
(50) 5/16" by 18 bolts, 1½"
(50) 5/16" by 18 bolts, 2"
(50) 5/16" by 18 bolts, 2½"
(50) 5/16" by 24 bolts, 1½"
(50) 5/16" by 24 bolts, 2"
(50) 5/16" by 24 bolts, 2½"
(50) 3/8" by 16 bolts, 1½"
(50) 3/8" by 16 bolts, 2"
(50) 3/8" by 16 bolts, 2½"
(50) 3/8" by 24 bolts, 1½"
(50) 3/8" by 24 bolts, 2"
(50) 3/8" by 24 bolts, 2½"
(25) ½" by 13 bolts, 2"
(25) ½" by 13 bolts, 2½"
(25) ½" by 13 bolts, 3"
(25) ½" by 20 bolts, 2"
(25) ½" by 20 bolts, 2½"
(25) ½" by 20 bolts, 3"

Manipulative Activity:

The student is given a box containing nuts, bolts, washers and nails mixed together and has to sort them into appropriate containers for further sorting.

Task Procedure:

1. Each object taken from the box is examined and placed in an appropriate container of nuts, bolts, washers or nails.
2. When the entire job is completed, each container of nuts, bolts, washers and nails is further sorted using an appropriate jig.

Task Objective:

The student should be able to do rough sorting of simple small objects.

Potential Use:

Sorting in various forms is used in material recovery in some sheltered workshops and industry.

Sources of Practice Materials:

Nuts, bolts, washers and nails are available in most hardware stores. The sorting box may be purchased from Sears. Baby food jars, cans and little cardboard boxes may be used.

SORTING NAILS BY HEAD TYPE

Materials for Jig Construction:

Two large tin cans.

Manipulative Activity:

The student is given a container of various nails. The common nails have large heads and the finishing nails have small heads. The nails are to be separated into the two types.

Task Procedure:

1. Each nail is examined and placed in a can for either common nails or a can for finishing nails.
2. When the entire sorting jib is completed, each can of nails will be sorted according to their length.

Task Objective:

The student should be able to sort simple objects accurately and rapidly.

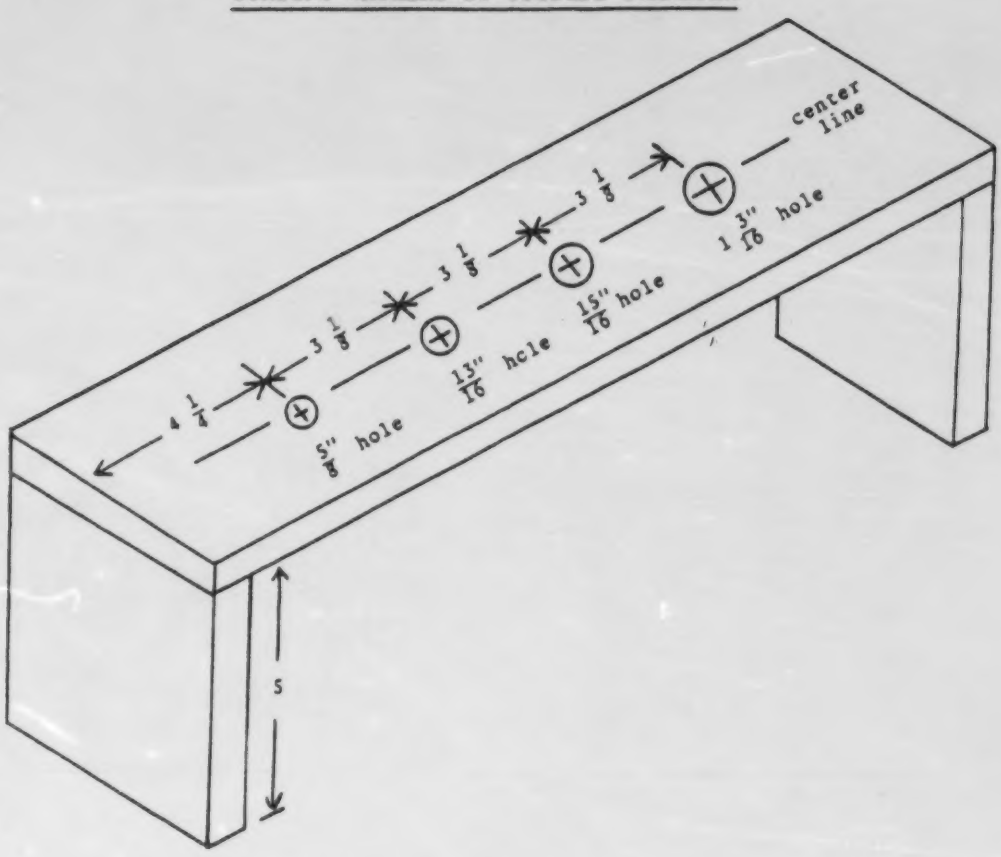
Potential Use:

Sorting in various forms is used in material recover in some sheltered workshops and industry.

Sources of Practice Materials:

Nuts, bolts, washers and nails are available in most hardware stores. The sorting box may be purchased from Sears. Baby food jars, cans and little cardboard boxes may be used.

SORTING WASHERS BY OUTSIDE DIAMETER



MATERIALS FOR JIG CONSTRUCTION:

1 piece 3/4" plywood 5" by 18"
2 pieces 3/4" plywood 5" by 5"
4 tin cans

JIG CONSTRUCTION PROCEDURE:

1. Draw a line down the center of the 5" by 18" plywood.
2. Layout four marks 3-1/8" apart along the line drawn in Step #1.
3. Drill a 5/8" clearance hole for the ½" washer on the first mark made in Step #2.
4. Drill a 13/16" clearance hole for the 5/16" washer on the second mark made in Step #2.
5. Drill a 15/16" clearance hole for the 3/8" washer on the third mark made in Step #2.
6. Drill a 1-3/16" clearance hole for the ¼" washer on the fourth mark made in Step #2.
7. Nail the 5" by 5" pieces on each end of the top for the legs.

Manipulative Activity:

The student is given a container of washers. The sizes vary and it is necessary to sort them into their appropriate outside diameter.

Task Procedure:

1. Each washer is slid across the face of the sorting jig until it drops through an appropriate hole and into a container.
2. When the entire sorting jig is completed, each container of sorted nuts will be returned to storage.

Task Objective:

The student should be able to use a simple sorting jig rapidly and accurately.

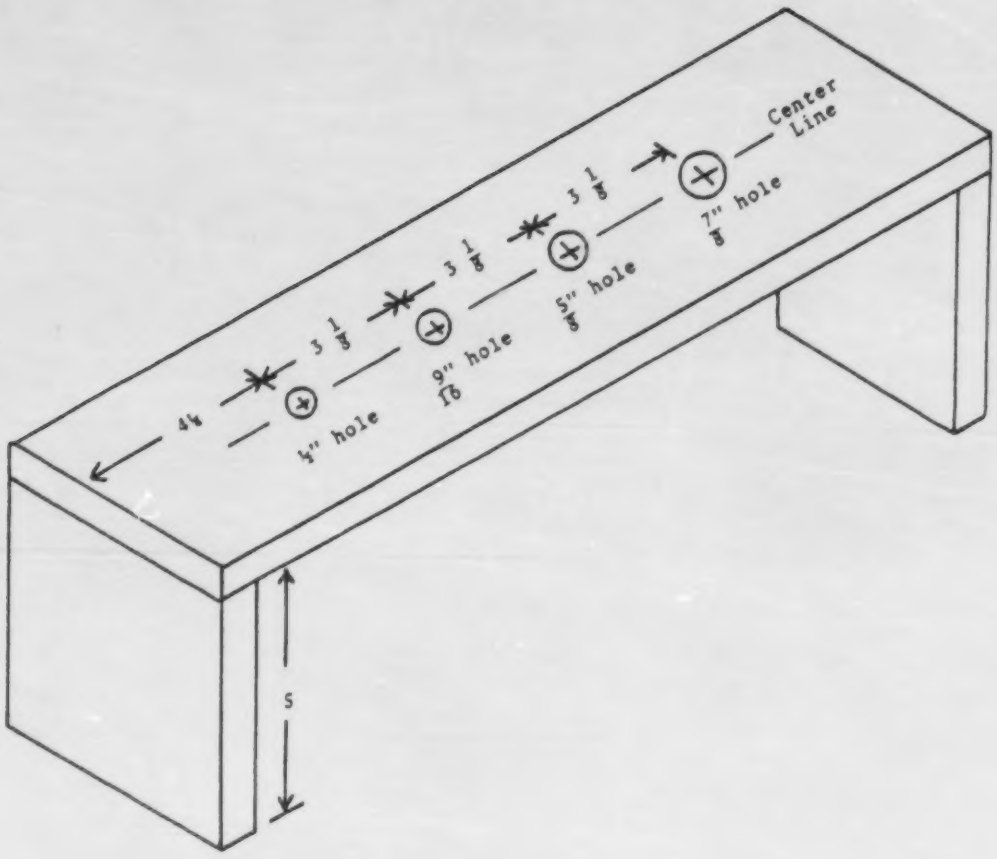
Potential Use:

Sorting in various forms is used in material recovery in some sheltered workshops and industry.

Sources of Practice Materials:

Nuts, bolts, washers and nails are available in most hardware stores. The sorting box may be purchased from Sears. Baby food jars, cans and little cardboard boxes may be used.

SORTING MACHINE NUTS BY HEAD SIZE



Materials for Jig Construction:

4 soup cans
1 piece 3/4" plywood 5" by 18"
2 pieces 3/4" plywood 5" by 5"

Jig Construction Procedure:

1. Draw a line down the center of the 5" by 18" plywood.
2. Layout four marks 3¼" apart along the line drawn in Step #1.
3. Drill a ½" clearance hole for the ½" nut on the first mark made in Step #2.
4. Drill a 9/16" clearance hole for the 5/16" nut on the second mark made in Step #2.
5. Drill a 5/8" clearance hole for the 3/8" nut on the third mark made in Step #2.
6. Drill a 7/8" clearance hole for the ½" nut on the fourth mark made in Step #2.
7. Nail the 5" by 5" pieces on each end of the top for the legs.

Manipulative Activity:

The student is given a box that contains machine nuts. The sizes vary and it is necessary to subsort them into their appropriate head size. Following this step, the nuts will be sorted by their thread patterns.

Task Procedure:

1. Each nut is slid across the face of the sorting jig until it drops through an appropriate hole and into a container.
2. When the entire sorting job is completed, each sorted container of nuts will be resorted according to its internal thread pattern.

Task Objective:

The student should be able to use a simple sorting jig rapidly and accurately.

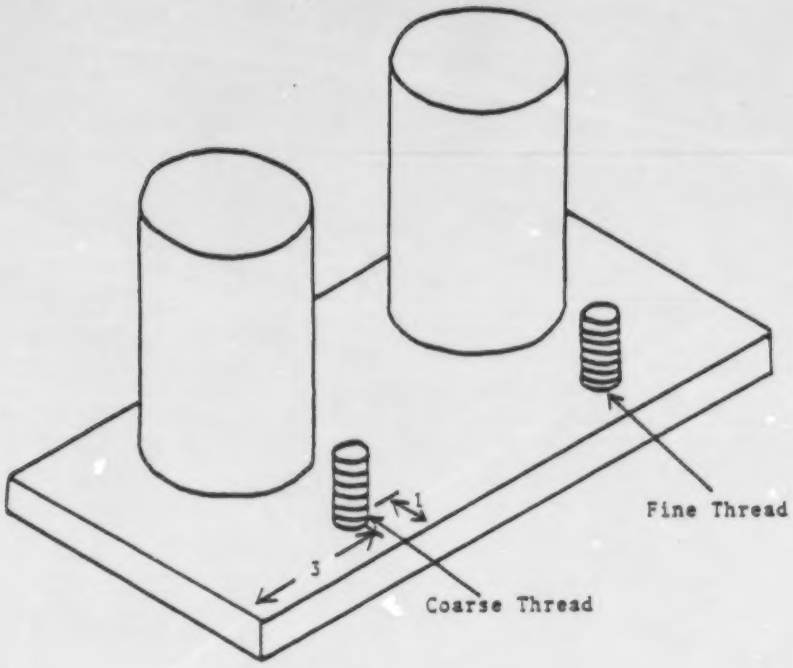
Potential Use:

Sorting in various forms is used in material recovery in some sheltered workshops and industry.

Sources of Practice Materials:

Nuts, bolts, washers and nails are available in most hardware stores. The sorting box may be purchased from Sears. Baby food jars, cans and little cardboard boxes may be used.

SORTING MACHINE NUTS BY THREAD PATTERNS



Materials for Jig Construction:

(1) ¼" by 28 bolt, 2"
(1) 5/16" by 18 bolt, 2"
(1) 3/8" by 16 bolt, 2"
(1) ½" by 13 bolt, 2"
8 tin cans
(1) ¼" by 20 bolt, 2"
(1) 5/16" by 24 bolt, 2"
(1) 3/8" by 24 bolt, 2"
(1) ½" by 20 bolt, 2"
4 pcs. 3/4" plywood 6" x 12"

Jig Construction Procedure:

1. Draw a line 1" in and parallel to the edge of each piece of plywood.
2. Measure 3" in from the end of each piece of plywood and make a mark on the line drawn in Step #1.
3. On the first board, drill two ¼" holes on the marks made in Step #2.
4. Place one ¼" by 20 bolt in one hole and one ¼" by 28 bolt in the other hole. Screw a tin can onto the board behind each bolt.
5. On the second board drill two 5/16" holes on the marks made in Step #2.
6. Place on 5/16" by 18 bolt in one hold and one 5/16" by 24 bolt in the other hole. Screw a tin can onto the board behind each bolt.
7. On the third board, drill two 3/8" holes on the marks made in Step #2.
8. Place one 3/8" by 16 bolt in one hole and one 3/8" by 24 bolt in the other hole. Screw a tin can onto the board behind each bolt.
9. On the fourth board, drill two ½" holes on the marks made in Step #2.
10. Place one ½" by 13 bolt in one hole and one ½" by 20 bolt in the other hole. Screw a tin can onto the board behind each bolt.

Manipulative Activity:

The student is given a container of machine nuts of all the same head size. The thread patterns will vary and it is necessary to subsort them into proper units.

Task Procedure:

1. Each nut is tied on the thread testing jig. When the threads match, the nut is placed in an appropriate container.
2. When the entire thread sorting job is completed, each container of nuts is returned to storage.

Task Objective:

The student should be able to put a nut on a bolt to check thread patterns.

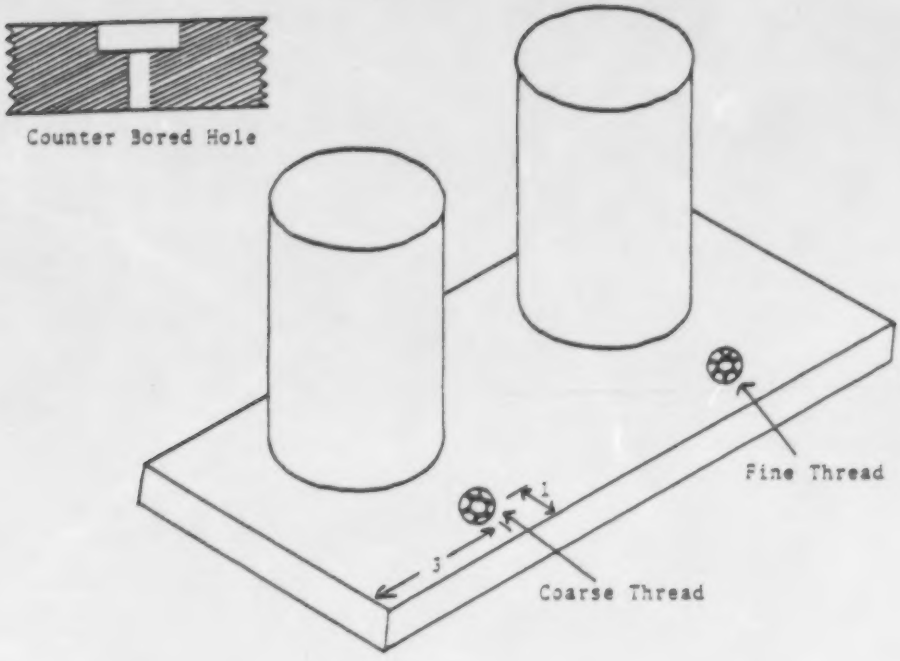
Potential Use:

Sorting in various forms is used in material recovery in some sheltered workshops and industry.

Sources of Practice Material:

Nuts, bolts, washers and nails are available in most hardware stores. The sorting box may be purchased from Sears. Baby food jars, cans and little cardboard boxes may be used.

SORTING MACHINE BOLTS BY THREAD PATTERN



Materials for Jig Construction:

8 tin cans
(1) ¼" by 28 nut
(1) ¼" by 20 nut
(1) 5/16" by 18 nut
(1) 5/16" by 24 nut
(1) 3/8" by 16 nut
(1) 3/8" by 24 nut
(1) ½" by 13 nut
(1) ½" by 20 nut
4 pcs. 3/4" plywood 6" by 12"

Jig Construction Procedure:

1. Draw a line 1¼ in a parallel to the edge of each piece of plywood.
2. Measure 3" in from the end of each piece of plywood and make a mark on the line drawn in Step #1.
3. On the first board, drill two ¼" holes on the marks made in Step #2.
4. Counter drill a 7/16" hole in the holes drilled in Step #3.
5. Place a ¼" by 20 nut in one hole and a ¼" by 28 nut in the second hole. Hit the nuts with a hammer to make them even with the surface of the plywood. Screw a can behind each nut on the board.
6. On the second board, drill two 5/16" holes on the marks made in Step #2.
7. Counter drill a ½" hole in the holes drilled in Step #6.
8. Place a 5/16" by 18 nut in one hole and a 5/16" by 24 nut in the second hole. Hit the nuts with a hammer to make them even with the surface of the plywood. Screw a can behind each nut on the board.
9. On the third board, drill two 3/8" holes on the marks made in Step #2.
10. Counter drill a 9/16" hole in the holes drilled in Step #9.
11. Place a 3/8" by 16 nut in one hole and a 3/8" by 24 nut in the second hole. Hit the nuts with a hammer to make them even with the surface of the plywood. Screw a can behind each nut on the board.

12. On the fourth board drill two ½" holes on the marks made in Step #12.
13. Counter drill a 13/16" hole in the holes drilled in Step #12.
14. Place a ½" by 13 nut in one hole and a ½" by 20 nut in the second hole. Hit the nuts with a hammer to make them even with the surface of the plywood. Screw a can behind each nut on the board.

Manipulative Activity:

The student is given a container of machine bolts of the same length. The bolt size and thread patterns will vary and it will be necessary to subsort them in proper units.

Task Procedure:

1. Each bolt is tried in the thread testing jig. When the thread patterns match, the nut is placed in an appropriate container.
2. When the entire thread sorting job is completed, each container of bolts is returned to storage.

Task Objective:

The student should be able to put a nut on a bolt and check the thread pattern.

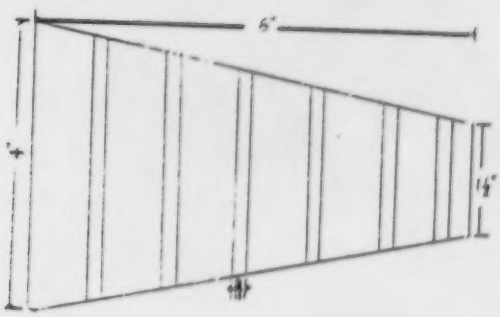
Potential Use:

Sorting in various forms is used in material recovery in some sheltered workshops and industry.

Sources of Practice Materials:

Nuts, bolts, washers and nails are available in most hardware stores. The sorting box may be purchased from Sears. Baby food jars, cans and little cardboard boxes may be used.

SORTING NAILS BY LENGTH



Materials for Jig Construction

1 piece of pine 3/4" by 4" by 6"

Jig Construction Procedure

1. Cut pine to size
2. Cut dados 3/16" by 1/4"
3. Round corners

Manipulative Activity:

The student is given a container of nails of the same head type. It is necessary to sort them into uniform lengths.

Task Procedure:

1. Each nail is slid across the jig until it stops and then it is placed in the appropriate container.
2. When the entire job is completed, each container of nails is returned to storage.

Task Objective:

The student should be able to use a simple sorting jig rapidly and accurately.

Potential Use:

Sorting in various forms is used in material recovery, and in sheltered workshops and industry.

Sources of Practice Materials:

Nuts, bolts, washers and nails are available in most hardware stores. The sorting box may be purchased from Sears. Baby food jars, cans and little cardboard boxes may be used.

SORTING MACHINE BOLTS BY LENGTH

Materials for Jig Construction:

* See Nail Sorting

Dodo cut 1/4" by 1/4"

Manipulative Activity:

The student is given a container of various machine bolts. The lengths vary and it is necessary to sort them into uniform lengths. Following this step, the bolts will be sorted by thread patterns. (See, SORTING MACHINE BOLTS BY THREAD PATTERNS.)

Task Procedure:

1. Each bolt is slid across the jig until it stops and then it is placed in an appropriate container.
2. When the entire sorting job is completed, each box of bolts is re-sorted according to its thread patterns.

Task Objective:

The student should be able to use a simple sorting jig rapidly and accurately.

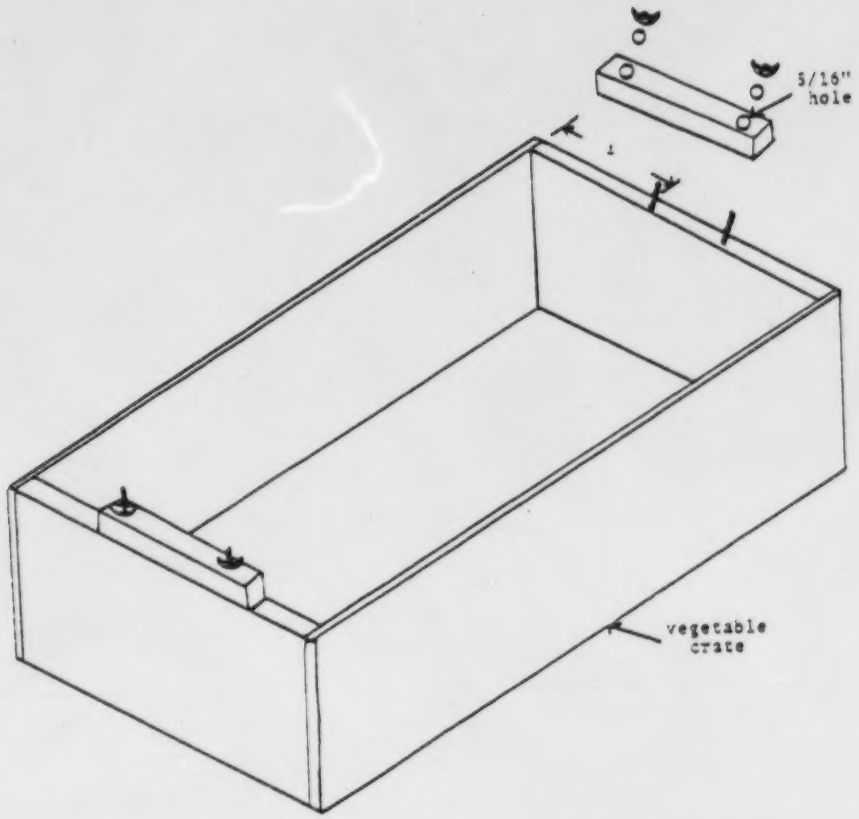
Potential Use:

Sorting in various forms is used in material recovery in some sheltered workshops and industry.

Sources of Practice Materials:

(See, ROUGH SORTING: NUTS, BOLTS, WASHERS & NAILS.)

BUTTON SEWING



Materials for Jig Construction:

1 wooden vegetable crate
4 lag bolts used to fasten toilets to the floor.
(4) ½" wing nuts
2 pieces wood 3/4" by 3/4" by 6"

Jig Construction Procedure:

1. Measure and mark 3/4" from the ends of the two pieces of 3/4" square pieces of wood.
2. Drill a 5/16" hole at the marks made in Step #1.
3. Measure and mark 4" in from the top edge of the vegetable crate.
4. Drill two 1/8" starter holes for the lag bolt on the marks made in Step #3.
5. Using a pair of pliers, fasten one large bolt in each end of the crate in the holes made in Step #4.
6. Slip the pieces of 3/4" square wood from Step #2 onto each bolt.
7. Using a second hole in the 3/4" square wood as a guide, drill a second 1/8" starter hole as in Step #4.
8. Repeat Step #5.
9. When the four lag bolts are fastened, place the 3/4" square pieces of wood over the lag bolts and put on the four flat washers and the four wing nuts.

Manipulative Activity:

The student is to sew buttons on a premarked strip of cloth.

Task Procedure:

1. The cloth is placed in the holding jig with the mark on the top side.
2. A threaded needle is shoved through the cloth from under the mark and the button is slid onto the thread.
3. The needle is shoved down through the button hole and the materials.
4. Steps #3, and #4 are repeated until the button is secure and then it is tied off.
5. The thread is either cut or broken.
6. Repeat Steps #1, #2, #3, #4, and #5 until there is not any more space in the jig.
7. Loosen the jig and slide the cloth over to provide a new space for buttons.

Task Objective:

The student should have a basic idea of hand sewing.

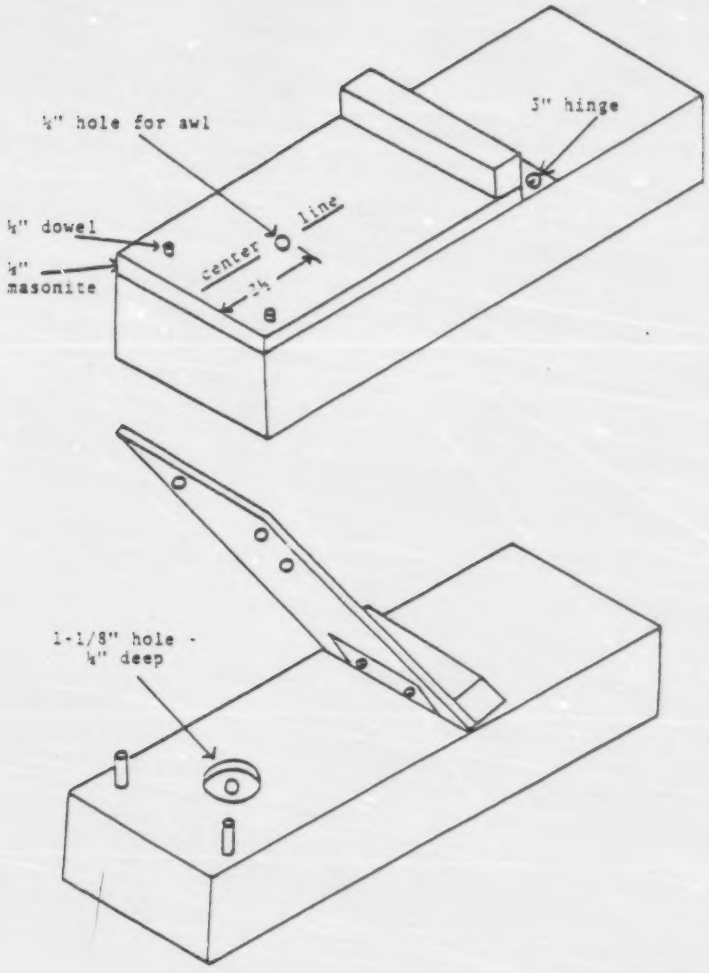
Potential Use:

Simple sewing is sometimes used in workshop situations for the repair of work garments.

Sources of Practice Materials:

Used buttons can be purchased from second hand stores.

BOTTLE CAP PUNCHING



Materials for Jig Construction:

1 piece wood 2" by 4" by 1'
1 piece ¼" tempered masonite 4" by 7"
(1) 3" flat hinge and screws
(2) ½" dowels 1"

Jig Construction Procedure:

1. Draw a line down the center of the ¼" masonite.
2. Measure and mark 2½" down the line drawn in Step #1.
3. Measure in and mark 3/4" by 3/4" on the two corners of one end of the ¼" masonite.
4. Screw the 3" hinge on the under side at the opposite end from the marks made in Steps #2 and #3.
5. Place the ¼" masonite on top of the 2" by 4" with the marked ends from Steps #2 and #3 even with one end of the 2" by 4".

6. Screw the hinge to the 2" by 4".
7. Drill a ¼" hole at the mark made in Step #2 and two ¼" holes at the marks in Step #3. Drill the holes all the way thorugh the masonite and about 1" into the 2" by 4".
8. Open the jig.
9. Round off the ends of the ¼" dowels and glue them into the two outside ¼" holes of the 2" by 4". The dowels should stick up about 3/8".
10. With the jig open, use a 1-1/8" high speed wood bit and drill a hole about ¼" deep in the center hole of the 2" by 4".

Manipulative Activity:

The student is to punch holes in bottle caps.

Task Procedure:

1. A bottle cap is placed in the jig.
2. A scratch awl is placed in the aligning hole and the awl is hit with the hammer until a hole is punched in the cap.
3. The awl is pulled out and the cap is removed and placed in a container.

Task Objective:

The student should know how to punch holes with a scratch awl and hammer.

Potential Use:

Simple punching and hammering are sometimes used in assembly work.

Sources of Practice Materials:

Vending machines that sell bottled soda pop have a container to catch the used caps. Most bars that sell bottled beverages have used caps.

BOTTLE CAP STRINGING

Materials:

Large needle
Kit string
Solder wire

Manipulative Activity:

The student is to place punched bottle caps on a 3-foot long string.

Task Procedure:

1. A long needle is shoved through the hole in a punched bottle cap.
2. The procedure is repeated until the entire string is full of bottle caps.

Task Objective:

The student should be able to do simple stringing accurately and rapidly.

Potential Use:

Hand stringing of beads is done in commercial jewelry work.

Sources of Practice Materials:

(See, BOTTLE CAP PUNCHING.)

CRACKING WALNUTS WITH A HAMMER

Materials:

Strong table
Hammer
Boxes or trays

Manipulative Activity:

The student is to crack walnuts with a hammer.

Task Procedure:

1. Place the walnut on a hard work surface and hit it with a hammer. The object is to crack the shell without cracking the nut meat. Hammer along the seam.
2. Place the cracked nuts in a container for cleaning.

Task Objective:

The student should be able to crack walnuts rapidly and with minimum damage to the nuts' meats.

Potential Use:

Cracked walnuts are a saleable item.

Sources of Practice Materials:

Large sacks of walnuts can be purchased from wholesale produce markets. Buying through the school or agency purchasing department might be an economical method of procuring walnuts.

CRACKING WALNUTS WITH A VISE

Materials:

Strong table
Woodworking vise or metal working vise
Boxes or trays

Manipulative Activity:

The student is to crack walnuts with a vise. This is slower than using a hammer, but it requires minimal dexterity and strength.

Task Procedure:

1. Place a walnut in a vise and hold it there.
2. Close the vise until the nut is cracked, then open the vise and remove the nut.
3. Place the cracked nuts in a container for cleaning.

Task Objective:

The student should be able to crack walnuts rapidly and with minimum damage to the nut meats.

Potential Use:

Cracked walnuts are a saleable item.

Sources of Practice Materials:

Large sacks of walnuts can be purchased from wholesale produce markets. Buying through the school or agency purchasing department might be an economical method of procuring walnuts.

CLEANING CRACKED WALNUTS

Manipulative Activity:

The student is to clean cracked walnuts.

Task Procedure:

1. Open the cracked walnuts and remove the nut meats. Care should be taken to remove the largest possible part of the walnut in tact. Store the nut meats for packaging. Be careful to keep nut shells out of the cleaned nuts.
2. The shells and other non-edible parts of the nuts are placed in a trash container.

Task Objective:

The student should be able to clean cracked walnuts rapidly and neatly.

Potential Use:

Cracked walnuts are a saleable item.

Sources of Practice Materials:

Large sacks of walnuts can be purchased from wholesale produce markets. Buying through the school or agency purchasing department might be an economical method of procuring walnuts.

PACKING CRACKED WALNUTS BY WEIGHT

Materials:

Kitchen scale
Plastic bags
Stapler

Manipulative Activity:

The student is to fill and weigh plastic bags of cracked walnuts.

Task Procedure:

1. Place cracked walnuts in a plastic bag.
2. Place the bag on a kitchen scale and check to see that the bag contains the proper weight.
3. Staple the bag shut.

Task Objective:

The student should be able to pack, weigh and seal bags of cracked walnuts accurately and rapidly.

Potential Use:

Cracked walnuts are a saleable item.

Sources of Practice Materials:

Large sacks of walnuts can be purchased from wholesale produce markets. Buything through the school or agency purchasing department might be an economical method of procuring walnuts.

ALUMINUM CAN CRUSHER

Materials:

A bench vise

Manipulative Activity:

The student is to crush aluminum beverage cans with a can crushing jig. The jig requires little strength or dexterity.

Task Procedure:

1. Place an aluminum can in the crushing jig.
2. Turn the handle of the jig until the can is crushed to the desired thickness.
3. Turn the handle to open the jig and repeat Steps #1 and #2.

Task Objective:

The student should be able to do simple hand press operations.

Potential Use:

Crushed aluminum cans can be recycled.

Sources of Practice Materials:

Many beverages come in recycable containers. The containers can be solicited from the students' homes or from local recycling centers.

APPENDIX

ADDITIONAL SUGGESTIONS

1. Use a commercial can opener: cut tops out of cans. The opener may be either motorized or hand operated. Then students can crush cans for sale.

2. Student can use plastic containers and practice capping and uncapping containers. These containers can be used over and over for task attention.

3. Old cardboard scraps can be used for cutting, folding, and tearing to develop hand strength. The scraps can then be used to make a mosaic which give parctice gluing and painting.

4. Lines can be made on paper and the student glues small pieces of wood to them following the lines to make a pattern.

5. Plastic trays can be used to place nuts and bolts into to help the student develop packaging skills and assembly line tasks.

6. Wood pieces (small) can be used to:

   a. cut to different lengths
   b. stacking
   c. drilling
   d. bundling
   e. labeling (sticker type)

7. Old catalogs and magazines can be crumpled to develop hand strength.

SUGGESTED TOOL LIST

This tool list is suggested to help the classroom teacher in establishing a prevocational training center.

1. Craftsman light-duty drill press.
2. Drill press vise
3. Bench vises
4. Jig saw
5. Band saw
6. Shut metal shear
7. Whitney punch
8. Scratch awl
9. Hammers
10. Saws
11. Screwdrivers
12. Drills
13. Woodworking bench with vises
14. Various sizes of wrenches
15. Craftsman belt-disc sander

SUGGESTIONS FOR IEP

RELATED SKILLS	ACTIVITY
developing gross motor skills	tearing
developing gross motor skills adhering to details	pasting and glueing
developing small muscles perception of figure-ground	coloring
developing gross motor skills developing small muscles	painting (includes finger painting)
tactual discrimination pre-writing laterality	tracing card
visual memory recall shape sequencing numbers sorting	bead stringing
shape perception size conception concepts of fitting directionality concept	form boards
shape/color differentiation motor control developing	workbench-placing pegs and pounding with wooden hammer
shape perception color awareness learn basic shapes classifying constancy	shape sorting (geometric)
development of fit/design observing and reproducing patterns developing small muscles perceiving differences in color and configuration paying attention to detai; spatial relationships sequencing aid in developing sense of numbers counting sorting grouping	pegboard-patterns mosaics parquetry
attending to details tactual discrimination comparing	textures

RELATED SKILLS	ACTIVITY
perceiving color perceiving patterns making judgments strengthening memory spatial perception concept of fitting	building blocks tinker toys crystal climbers lincoln logs
shape perception size conception counting	stacking toys add-a-rock
shape perception relative size conception color perception manual dexterity	nesting blocks match-ems kitties in the kegs
design awareness shape perception attending to details perception of configurstion pattern perception conceptualization of shape development of fit and design synthesizing strengthening memory directionality	puzzles: 1 piece-rubber/wooden multi-piece wooden or plastic-dimensional part-to-whole puzzle face-figure puzzle
developing small muscles strengthening visual muscles adhering to details	cutting: scissors 1. on a line 2. a pattern/shape using a knife
developing concentration ability fine motor development sequencing	lacing card
developing small muscles sequencing	weaving mats
observing size relationships developing small muscles inferring	matching tops to bottles
development of prehension numbers grouping matching color to color sequencing	clothespins: match to colored bowls, pin to paper/clothes, pin paper/ clothes on line, counting
observing size relationships developing small muscles inferring	nuts and bolts

RELATED SKILLS	ACTIVITY
developing small muscles counting reasoning	safety pins: opening-closing placing items on pins pinning 2 or more items together
developing small muscles	sharpening pencils
developing small muscles	key in lock-opening or locking a door
developing small muscles sewing skills	threading needles: large needles-darning, standard needles
sequencing fine motor development problem solving	folding paper following a pattern placing in correct envelope
developing small muscles numbers reasoning	paper clips fastening paper with clip connecting paper clips
developing small muscles	thumbtacks on wall
developing small muscles	fastening paper with stapler stapling on board removing staples
sequencing fine motor development measuring-placement of holes	punch holes place paper in norebook remove from notebook
object identification matching colors and objects labelling relate verbal description to visual materials letter recognition recognizing colors and shapes developing concentration abilities noting detail sequencing classifying associating	Games: board-lotto, cards concentration, sequence picture cards
developing muscular control sequencing body awareness laterality socialization	Games: playground games, throwing, catching, kicking, hitting balls
writing skill directionality spatial relationships	tracing imitation of strokes scribbling dot-to-dot penmanship

RELATED SKILLS	ACTIVITY
develop small muscles sequencing	dressing: buttoning, lacing, zipping, hooking, snapping, typing, buckling
making judgments quantitative concepts conservation/pre-operational and operational	pour liquids

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